Scout Report sent out	The state of the s	· U		
Noted in the NID File		П		1
Location map pinned		Pri	or OGC	, 
Approval or Disapprove Letter			1 00	71)
Date Completed, P. & A. or operations suspended	Cas	uptite		,,,
Pin changed on location map				
Affiliavit and Record of A & P		Ц		
Water Chul-Off Test		П		
Gas-Oil Ratio Test				
Well Log Filed		E,		

¥7.,

FILE NOTATIONS			
Entered in NID File	Thur Oc	600 Checked by Chief	
Entered On 5-3 Sheet			
ocation Mip Pinned		Copy NiD to Field Office	***************************************
Sard Indixed		Apagoval lather	***************************************
WR fo State or Fee Land		Discopre for	
eM C2 oM √ MM	TA	Location for relative  Bond refer to the State of Fee Land	
Driller's Log 6-26	100:	S FILED	
Electric Logs (No. )	4		
E	F-1	GR-NM	

PD 4A MARTER SET 2005 CONTINUES WEST IN A.

#### SHELL OIL COMPANY

### North Boundary Butte

DRILLING REPORT

		33	4.	
	· · · · (#	MOTION .		to \$5.00
T. I	12 5.	R.	22 E	, SLBU
-	1 2 2			7 PK 18 1

Sun Juan, Utah

January 9, 1955

	COOUNT	4)			(TOWNSHIP OR RANGHO)
A SECURITY OF THE PARTY OF THE	DED	THS			
BAY			REMARKS		
	FROH	ТО			
			Location: 3300 N., 1980 W., or Salt Lake Base and Mer	f SE Corner, Se ridian, San Jua	c. 33, T. 42 S., R. 22 R., n County, Utah
			* 11	•	the state of the s
			Rievations: Mat 5016.3', K. B.		
1-9	0	261	Drilled 261', spudded in at 9:00 and ran slope tests, 1 1/2 hour	AM with 12 1/	he bit. Repaired mud line
- /			and ran slope tests, 1 1/2 hour	s. Treated mud	with gel.
			Mud Summary Weight 9.0#/gal.		
<i>i</i> <b>•</b> •		•	Viscosity 40 sec.		
ž Ž	100	1			
1			George Noland Drilling Company		
•	-		T. T. Glazebrook H. E. Clements		
	300	1	J. M. Conder		
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and the second	1 m				
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<b>1</b>	1				
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S S S S S S S S S S S S S S S S S S S				- -	
100 mg	Ì				
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Kanada Mili					en e
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<b>30</b>					
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					and the second s
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Ü	Į	į			
-	CC	NOITION A	T BEGINNING OF PERIOD		
	HOLE		ASING BIZE DEPTH SET		
642E	PROM	TO			
	1				
	Ì				
1					
	1)				
DRI	PIPE 1	7/24,	1>• <b>/</b> #		
	nzes				

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		.1.	٠
WELL	No		

Nostàl Bennelsy Betse (FIELD) San (1) 222.

# DRILLING REPORT FOR PERIOD ENDING

Session 33

(SECTION OR LEASE)

L. M.

	INTY	and the second s	All and the second of the seco	7. 42 S. R. 22E. S. I
(CO)	23(14)			(TOWNSHIP OR RANCHO)

DAY	DEPTHS		
	PROM	то	REMARKS
Mercan Constitution	201	7.2.	Let'That hills. Welder curries and rough out a ninetor ripe, 1/2 hr. of
		527	laine la 121. Okto les a sues la si, la la estra. Invalou multurit pel end
	! !	2023	brijāni vēt. Lesembet ir no alta kir man ik jā, h hra. Cirallatedi ā has. Ruli d mun o i moly ka mer nomi es ann sy.
1-23	1,02,3	1020	Brilledon'. Roll & 1/6", 3cf. 1-4. I. 1. 1. Such a caseng. Londed at 1012 Used a pre-devoted a few of the such as a second consent, 115# slurry. Used a pre-devoted as a few of second at 10 bbls. It is attended and 10 bbls. It is attended and 10 bbls. It is a few of the second at 5th 10.  Brokes out longing sint, of the leavent and, lowed up both BOP's and a consented to both of a filter, and a Second details of mouse hole, 6 hrs.
1	1025	1025	Drillied Gi. Finial of artilly made to be and accomed pits, 8 hrs. Rigged up from a triver of #2 motors, 8 hrs. Cooker we can pumps on #1 and #2 motors, reported the tar of the first pade of a resource rank of a Dr. 8 hrs.
- L	icoj	1355	Drollick 1981. Prison nor company on an op (W.C.C.). Read in hele and found found for of cement at 190. In a sure ripe. I when also not equipment with 150% for 19 min muse, C.E. Del a cent of below easing slow. Maximum a personner test, 190% for a mirror of the large and with gel, quebrache and seestic.
1-10	1333	2738	- Dellage Sig. Pickel on pro-barrel. I w. Ir still mid with quebracho and conside.
			Ned Summer 1/9/3941/16, <b>55</b> Ned Summer 1/9/3941/16, <b>56</b> Ned Su
· · · · · · · · · · · · · · · · · · ·	anno amb amb	1.50.50.50.50	The state of the s

The second secon	್ಲಾಪ್ ಪ್ರಾಥಾಗಿ ಭ	NOTTION	AT BEGINNI	NG OF PERIOD
The second secon	HOLE	_	CASING SIZE	DEPTH SET
BIZE	FROM	то		
1.2 ]	11	46.01		
	İ			
	İ			
		] }		
DRILL	PIPE 4	<u>., '2</u> ",	11.00#	

Indrard Snyder

Section 33

T. 428. H. 22K. S. L. M.

# DRILLING REPORT

North Boundary Butta San durr, Utah January 23, 1765

oan c	u ing ui		1. 1123. g R. 228. g S. L. M.			
	(COUNTY)			(TOWNSHIP OR BANGHO)		
DAY	Depths					
	PROM	TG	REMARKS			
in particular						
17	1738	2146	Drilled 4061. Number P engine down; broken pi: block and twested connecting son. Treated mustand gel.	ston, sleeve, portion of d with quebrache, caustic,		
1.8	231/6	2350	Orilled 2041. Circuit of up samples. I hour. quebracho and crostic.	Treated mud with gel,		
<b>-</b> 17	2350	2.182	Drilled 1921. Thed jed to syncum hase mul. 6 1	1/4 nours. Mixed starch ar		
-50	2462	2688	Drilled 2001. Treated and this, apportage star	cch.		
<b>2</b> 1	2686	2802	Drillied 20%. Jetted shale wit and mixed mud, with gypsum and preservative. Mixed salt gel, servative.			
. <b>-</b> 2?	27.92	13016	Drilled 1241. I hour repaired now 14 te. 1 1/2 page out of hole. Treatel mud with gypsum and	repaired cathead. Strapped preservative.		
-23	3016	3113	Drilled 97'. Surapped out, 20' too long accommude with gypsu., starch, salt get, and present	ding to pipe tally. Treat vative.		
	•		R.O.B. checked defily.	and the second		
		Manage department of the same	Drillers for George boland:  T. T. Glesseprool:  H. E. Glements  J. M. Gensor			
	entrangental de la constanta d	eran de la companya d	Two Summerty: Weight: 9.3-10.1#/gal. Viscosity: 40-45 sec. Weter Loss 7.8-9.5 co			
		And the state of t	Galinity: 200-350 ppm NcCl Filter Cale: 1/32-2/32" pH: 0.0-6.5			
			1			

THE THINK	CONDITION AT BEGINNING OF PERIOD						
HOLE				CASING SIZE	DEPTH SET		
	IZE	PROM	TO				
12	1/4"	0	1023	9- <b>5/</b> 8#	1012		
?	7/J#	1023	1738				
	DRILL T	PIPE 4	1/2",	16.6#			

anuary 30, 1955

North Boundary Butte (FIELD) San Juan, Utah

DAILLING REPORT

Section 33

(SECTION OR LEASE)

42 S., R. 22 E., SIM (TOWNSHIP OR RANCHO)

DAY	DELTHS		
	FROM	10	REMARKS
1-24	3113	3262	Drilled 1191. Er atel mud a un preservative, gypsum, salt gel, and obstaren.
1-25	3262	3375	Drilled 113'. 1/2 hr. jotted shale pits. Treated mud with gypsum, preservative, stards, and say gel.
1-26	3375	3464	Drilled 89%. 3 1/2 www. installed #2 motor, 1 nr. repaired stand pipe. Treated mud with preservative and gypsum.
1-27	3404	3561	Drilled 97'. 1/2 hr. corculated up ditch cuttings, 4 hrs. repaired need pigo. Treated need with starch, salt gel. gypsum, and preservative.
1-28	3561	3662	Drilled 101'. Circulated 1 hr. Rigged up to run Schlumberger logs; Tur. Ran Schlumberger electrical survey and Microlog to 3573', 6 hrs. Freated mod with gypsum, salt gel, starch and preservative.
1-29	3662	3762	Drilled 100'. Lost circulation \$50 bbl. at 3762'. Added lost circulation stands and got good returns. Hit bridge 20' off bottom. Treated mus with gypsum, preservative, starch and 31 bags fabor seal.
1-30	3762	<b>3</b> 857	brilled 95% Lost circulation, \$70 oblact for second time at 3762%. Polled 2 spands and mixed lost circulation material, 3 hrs. Reamed
			25' to bottom, 2 1/2 brs. Cut oif drilling line, 1 1/4 hrs. Treated mud with 21 bags Tuf Plag. 14 sacks fiber seal, 2 sacks hulls, starch; gypsum, preservative and call gel.
			Mud Surmary

Drillers for Geo. Noland Drilling Company

200 - 350 ppm. NaCl

9.6 - 10.1#/gal.

42 - 43 secs.

Water Loss 8.4 - 9.5 c.c.

2/32 in 7.0

F. B. Levis H. E. Clements

CONDITION AT BEGINNING OF PERIOD							
	HOLE		CASING BIZE	DEPTH SET			
SIZE	FROM	to					
12 1/4	0	1023!	9 5/8"	10121			
7 7/8	1023	3113'					
DRILL	PIPE	1/2",	16.6 #/1:	n.ft3			

Weight

Cake

рН

Viscosity

Satinaty

T. T. Glazebrock

North candian has

(FIELD)

(COUNTY)

1/20

DRILL PIPE

Son Only Whan

#### SHELL OIL COMPANY

#### DRILLING REPORT

FOR PERIOD ENDING Por hader of 1995

	~		

(SECTION OF LEASE)
T. 42. S., R. 22L., J. L. M.

(TOWNSHIP OR RANCHO) DEPTHE REMARKS FROM TO Diffuse: 107\*. Palls of a ./ of the control of the water and h.O.P., 3 1/2 doctors of the control of the contro J057 2904 in this was a war and the contractions of the contraction of the contr 3004 4005 Frill wit. Warrant a great of Double ted for Doff #1, I hour with field, I hours. Started DST #1, I hour with field, I hours. Started DST with five and the field of the five and the field of the five and the field of the five and the field of the field ا ( ال Latin Lighten with the second of the 11. 4176 J. 6 . 1 1. 20 all. iv Wei rt. 7 .pn 2 ... ∂.3 197 ... 9.5 , SIP IV ... lized. N.i before idin szi, ap zmik, so The first lower deleaded to the lower deleaded to the lower delease of t o i di dinam, go en matimo, end the late of the desire of the sections, 1/2 hours. The first of the course weaker on motor of the plant, I had CONDITION AT BEGINNING OF PERIOD The Angurs. Worked on motor e de Carlos de Barto Ly, esta a moura, de reacted HOLE DEPTH SET CASING SIZE BIZE FROM 10. . . . . .

old Mar Lange Long

North Borning Pollan

DRILLING REPORT

POR	PERIOD	ENDING

(SECTION OF LEASE)

171 (7.1)	O.F	LIC.	inco L	2476	- 7
			(ELD).		
San	Ju	lan.	Whah		

(FIELD). San Juan, Utah (COUNTY)		uan, Than . Saboter 6, 1959		T.42S.,	T. 128., 228., S. I. M. (TOWNSHIP OR BARRETO)	
DAY	DEPTHS					
	PROM	то	REMARKS	e v	ø.	
2/6	4374	ише	Drinled of: Lost expediented at book 1, 150 a mit of made and not full returns. Ment to caroulation at block that the barrows is 172 hours. Treated made with 10 sacks 5 sacks total cluster allowed, per sel, color got, 2 sacks	ok in Mole, ma a. Started pu a hulla. 18 sa	de 2' and <u>lost</u> ling for new oks fibre seal	
			Mud Summary Weight: 9.1 Whygra. Viscosium: 140			

Drillens for Courtillate Bellette

12. 1. Louis

1. Clevento

1. T. Presento

3.0... Circle, Trily

	HOLE		CASING SIZE	DEPTH SET
SIZE	FROM	10		
1 4"	9	10000	9 5/8"	
7, 8#	: 1.020 '	39571		

WELL NO.

North Dans ler " Parte (FIELD)

(COUNTY)

Ser Juan, I tah

DRILLING REPORT

FOR PERIOD ENDING

Department 1 july 193

Section 33

.41 S., R. 12 H., S. L. M.

(TOWNSHIP OR RANCHO)

-			(TOWNSHIP OR RANCHO)
DAY	DEPTHS		
	FROM	то	REMARKS
The second secon	19440	4535	Drailed Got. Appears on a successful early or deal with new bit, TWA FROM Girls to the two wave in a during properties). Circulated up someter, I 1/2 is on. The ted may a state of walt got and grosum.
		4.594	Dellas Maries of a decreasing before a real stem test,  Thomas Fine of a decreasing before the second page up test tool,  2 notes, was an including a decreasing before  DST 1, 4307-4149, Foursten testers. On terms when deal Bootain packers  at 1900 for 130% three of three or when realizes, I" subsurface bean,  perform the following the automorphism of the constitution. Tool oper  1 hour last before, when in 10 minutes. Very weak thew, dead after 5  minutes are subset to be a last to be seconds a reviving blow. Fluid  loss in a solution for two cashing no scores a reviving blow. Fluid  loss in a solution for two cashing a solution.  Feet Above  Description for 320 9.4  Delling had 120 9.4  Tool Drilling Tod
			IFP 10), FFF 100, SIF 130, HE 70 0. IFF TO THE THE THE THE THE THE THE THE THE THE
Parameter of			Pulled topo. 2 december of the control of the left to 1, 1 1/2 hours. Ren in hole with central to the hours.
	4501,	1,626	Drilled of Gorea 231. Commission of a soring, I hour. Pulled out to be for the soring, 2 hours. Inched to and enecked core barrel and prop. I hour. Inched. it has for bore at, at hada, 2 hours. Groulation, I hour. Core to have Moralog released and watery desineering installed at the Core to Treased and my the property of property and spansh.
2/10	<sup>1</sup> ₄02s	L'OLIC	Cored 13', Driled 1'. Jorea, I hours. Fulled Core #1, 4603'-4638', recovered 35', services core bettel, 1/2 hour. Non cast in hold for Core #2, 1 1/2 no r. Cored 1' 1 hours. Fulled Core #2, ho36'-4639', recovered 1/2'. Dressed or to pay the 1 1/2 hour. Non back in cole with rock bit, 1 1/2 hours. Drilet 1. 1 hour. Fullet out to take Core #3, 2 1/2 hours. Treated and making prosecvative, salt sel, and making starch.

CONDITION AT BEGINNING OF PERIOD HOLE CASING SIZE DEPTH SET FROM SIZE TO 10231 9 5/8" 01 U3121 1.32314446

WELL NO.

North Boundary Butte
(FIELD)
San Juan, Utah
(COUNTY)

## DRILLING REPORT FOR PERIOD ENDING

Section 33

(SECTION OR LEASE)

T. 12 S. R. 22E. S. L. M. (TOWNSHIP OR RANCHO)

DAY	DAY DEPTHS							
	FROM	ТО	REMARKS					
3-410	261	714	Defilied 4531. Welded suction hims on pump and conductor pipe, 1/2 hr. of lecated and with gol.					
1-11	7214	927	Drilled 2101. Reprired and line, 1 1/2 hrs. Treated mud with gel and quebrashe.					
1-11	927	1023	Drilled 96. Repeired compound chain and nump chain, h hrs. Circulated 2 hrs. Pulled out of nole to ren surface casens.					
1-13	1023	1.023	Drilled: 0. Ran 9 5/8", 36#, 1-55, L.T. 8 C., Spang casing. Landed at 101 Used approximately 350 sacks of Regal Portland cement, 115# slurry. Halliburton comenters. Pumpel 20 bbls. of water ahead and 10 bbls.					
			behind. Good returns at surface. Plug on bottom at 5:45 AK.  Broke out landing joint, put on Bordon need, picked up both BOP's and comented bottom of cellar, 3 hrs. Started drilling mouse hole, 8 hrs.					
11	1023	1023	Drilled O'. Finished drilling mouse hele and cleaned pits, 8 hrs. Rigged up Hydril and EOF's, 8 hrs. Packed water pumps on #1 and #2 motors, repaired heater on #1 motor and changed rame in EOP, 8 hrs.					
1-15	1023	1 <b>3</b> 55	Drilled 332. Put on new compound chain (W. O. C.). Ran in hole and found top of cement at 100m, in surface pipe. Tested blowout equipment with 750% for 15 minutes, C. F. Drilled out 50 below casing shoe. Maximum pressure test, 500% for 5 minutes, C. F. Treated mud with gel, quebracho, and caustic.					
1-16	1335	1738	Drilled 383', Picked up core barrel, Silve. Treated mud with quebracho and caustic.					
			I. O. E. and kelly stop checked daily.  Mud Summary 1/9/53-1/16/65  Weight 9.0-10.8%/gal.  Viscosity 40-50 sec.  Water Loss 9.6 sc.  J. M. Cander					
			Filter Cake 2/32 in. Schinity 200 ppm pH 10					
	CON	IDITION AT	BEGINNING OF PERIOD					

	HOLE		CASING SIZE	DEPTH SET
12 1/h	FROM	2611		

DRILL PIPE 4 1/2", 16.6#

Loonard Snyder

North Boundary Butte San Juan, Utah

# DRILLING REPORT

January 23, 1955 🐪

Section 33

(COUNTY)

•				
-	DAY	DIST	THE	
į		Phon	70	REMARIS
			3.00	
	1-17	1738	2146	Drilled 406. Number 2 engine down; broken piston, sleeve, portion of
	. 1		is a	block and twisted connecting red. Treated mud with quebracho: caustic.
		2		and gel.
	1-18	2346	2350	Drilled 204'. Circulated up semples, I hour. Treated mud with gel,
				cuebracho and caustic.
5	1 10	22.50	ni an	
	1-19	2350	2482	Drilled 132 Changed to gypsum base mud, 6 1/4 hours. Mixed steroh and gypsum.
	1-20	2482	2688	Drilled 206'. Treated mad with syroun and starch.
	1+21	2680	2892	Detaile only tracks burgers and a series of the series of
	- 1- C.	2000	2072	Drilled 204. Jetted shale pit and mixed mud, 1 1/4 hours. Treated mud with gypsum and preservative. Mixed salt gal, starch, gypsum and preservative.
				servative.
	1-22	2692	1 207	
	7-65	2092	3016	Drilled 124. I hour repaired mud line, 1 1/2 repaired cathead. Strapped pipe out of hole. Treated mud with gypsum and preservative.
Ì				purpo od o grantes in the seed mad with grantes and proportion of the seed in
-	1-23	3016	3113	Drilled 971. Strapped out, 26' too long according to pipe tally. Treated
				mud with gypsum, starch, salt gel, and preservative.
	*	, i		B.O.E. checked daily.
	,	1		
				Drillers for George Noland:
				T. T. Glazebrook H. E. Clements
Σ				J. M. Conder
				Mud Summary:
				Weight: 9.3-10.1#/gal. Viscosity: 40-45 sec.
				Weter Loss 7.8-9.5 oc
				Salinity: 200-350 ppm NaCl
				Filter Cake: 1/32-2/32" pH: 6.0-8.5
1	11			
	4.			

CONDITION AT BEGINNING OF PERIOD								
	HOLK		CAMPIO SIZE	DEPTH SET				
6128	FROM	70						
12 1/4"	С	1023	9 5/8" 4	1012				
7 7/8	1023	1738						
野内はLL 野区を	DEPTE L	1/2",	16.6#					

North Boundary Butt

#### SHELL OIL COMPANY

# DRILLING REPORT

January 30: 1959

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7			- ·	***	•
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	4		, in	,	

-	-	A SALES	(77W) on RANGING
DAY	DEI	THS.	REMARKS
	FROM	то то	
1-24	3113	3262	Drilled 149'. Treated mud with preservative, gypsum, salt gel, and
			staron.
1-25	3262	3375	Drilled 313'. 1/2 hr. jetted shale pris. Treated mud with the
			preservative, starch, and sait gel.
1-26	3375	3464	Drilled 89'. 3 1/2 ars. installed #2 motor, 1 hr. repaired stand pipe.  Treated mud with preservative and gypsum.
1-27	3464	3561	Brilled 97'. 1/2 hr. carculated up ditch outtings, a hrs. repaired stand pipe. Treated mud with starch, salt gel, gypeum, and preserve
			vative.
1-28	3561	3662	Drilled 101'. Circulated 1 hr. Rigged up to run Schlumberger legge
			l hr. Ran Schlumberger electrical survey and Microlog to 3573, 6 has. Treated mud with gypsum, salt gel, starch and preservative.
1,-29	3662	3762	Drilled 100'. Lost circulation 50 bbl. at 3762'. Added lost
	* 45	No.	culation material. 3 hrs. Pulled 5 stands and got good returns. Hit is bridge 20' off bottom. Treated mud with gypsum, preservative, starth
			and 31 bags fiber seal.
1-30	3.762	<b>3</b> 857	Drilled 95. Lost circulation, 230 bbls. for second time at 3762
			Pulled spends and mixed lost diroulation material, 3 hrs. Reamed 25' to bottom, 2 1/2 hrs. Cut off drilling line, 1 1/4 hrs. Treated
		4.34	mud with 21 bags Tuf Plug, 11 sacks fiber seal, 2 sacks hulls, starch; gypsum, preservative and salt gel.
			Checked B. O. E. and Kelly Stop daily.
			Mud Summary
			Weight 9.6 - 10.1#/gal. Viscosity 42 - 43 secs.
			Water Loss 8.4 - 9.5 c.c. Cake 2/32 in
			physical form the second of th
			Salinity 200 + 350 ppm. NaCl
			Drillers for Geo. Noland Drilling Company
			F. B. Levis
			BEGINNING OF PERIOD H. E. Clements  T. T. Glazebrook
SIZE	HOLE	16 · CA	SING SIZE DATH SET
3424	PROM	10	

12 1/4" 0 1023" 9 5/8" 7.7/8" 1023 3113 DRILL PIPE 4 1/2", 16.6 #/1 n.ft

North Boundary Sutte Gentler San Juan, Utan

# DRILLING REPORT FOR PERIOD ENDING

(COUNTY)

BIZES 4 1/2"

February 6, 1955

T. 12. S., R. 22E., S. L. M.

	DEBTUG			TOWNSHIP OR MANCHO
DAY	DI	IPTHS	9. <del>-</del>	
-	FROM	70		The REMARKS (1) The state of th
1/31	3857	3964	Drillian 1024 p	
-, -, -	1 3007	13704	hours, Ran es !	Pulled out of hole and the sad choke valve in 5.0.P., 3 1/2
			The second desired for e.	ikali wasa 20070o Manaari ili 172 dha mari - Panakkai wasa kai ka waka ka
			( recentrative, a	and said oal.
2/1	3964	14063	D: 111ed 991. P.	or or too cluscob and brake cylinder, and worked on maste
<u> </u>			lest circulation	or material. A hours. Treated may with Do sacks fiber
			sear, Dob Eacks	in lie, - preservative, sait get and starch.
2/2	4063	4129	Drilled 60% Wor	rket on a so, a le hours. Circulated for DoT #1, I hour
			$\frac{\text{spanch}}{\text{nr}}$	, 25 9:00 Pt. Treated and with gypsum, preservative and
2/3	1500			
( 6/ J	4129	4176	Drilled 47' Dec	Cockers of 30.01 and 39.31.3 outside pressure recorders.
		1	l" Subsurface by	ocokers of 9930 and 9931,3 outside pressure recorders.
			•	the probability of the company of the probability of the company o
			booker second of	ine, weak Go, dead after 15 minutes; pypassed ine, weak Go, dead after 15 minutes, dead remainder of ss. in annutus 2 feet (0.1 bbls). Adovered 931 (0.46 bbl)
				recovered 931 (C.46, bb1)
	4.		Pest¦Abovs Pester	Salinity Weight
			(3.(31)	Description (t) ppm #/gsl7+30
		{ }		7u2  for   9  3
			Cool an had	Note: Trans
			tost 300 ppm, 9, 6	25, IFF 120, FFF 120, SIP 120 smobilized. Mid before
			Testing, 2 beers.	to the state of th
		, (		- Parista Control (1997) - Parista Control (1997) - Parista Parista Parista Parista Parista Parista Parista Par
į			၂ ဦးကြီး ကြည့်ဦး လည်း သည် မြောင်များလည်း	The land common chain, a hours. Started pulling of the common of the com
			starch.	recommendation of a said New Proposin, preservative, and the
2/4	1.176	4285 -	The first and the first of the	
	,		1000 2 000 and with	The control of the desired on motoms, 1/2 hour. The control of the
275	h235	1:37)	Drillad 801 Deca	
		IDITION AT	BEGINNING OF PERIOD	led out of the former this, 2 hours. Worked on motor
	HOLE		SING SIZE DEPTH SE	ser   1992   New Wood in hole, 1 1/2 hours, Treated
BIZE	FROM	70		or d with sake, gen.
2 1/4"		1042 S	1.3768 3.30124	
7/00	10233	3 <b>5</b> 7 3		
1				

North Boundary Butte

DRILL PIPE 4 1/2",

16.6#

DRILLING REPORT

Sen duan, Wesh February 6, 1955 of T. 1826, 1987  DAY Depris Remark  2/6 h37k lathe Drilled of Lost circulation at 1381, 150 bbls. Fulled a dit of mad and got full returns. Ment beek in hole, mad circulation at 1382, total time 8 1/2 hours. Started put bit, 1 1/2 hours. Treated mad with 10 sacks hulls, 18 sac 5 sacks toff plus, classed, salted, gasum, and preserv Mod Survay. Weight 9, h-9.9#/gol.  Viscosity: Li-52 sac Vater Losts 2/32" Salinity: 300-350 pres pH: 7.0  Drillers for Sec. Molenal Drilling  E. Losts  H. E. Clements  T. T. Glazebrook  B.O.S. Checkel Delly	o stands at
2/6 4374 4440 Drilled 66'. Lost circulation at 4381', 150 tble. Pulled 5 a bit of mid and got full returns. Went back in hole, mad circulation at 1.286': total time 8 1/2 hours. Started pull bit, 1 1/2 hours. Treated mid with 10 sacks hulls, 18 sac 5 sacks tuff plus, clar gel, salt gel, grosum, and preserve Weight: 9.1-9.9#/gel.  Viscosity: 41-52 sec Water Loss: 5.2-2.0 Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Sec. Volend Drilling: 1.  Lewis H. E. Clements T. T. Glezebrook	o stands at
2/6 4374 4440 Drilled oc'. Lost circulation at 1381. 150 bbis. Palled 9 a pit of mud and got full returns. Went back in hole, mad circulation at 1,286. total time 8 1/2 hours. Started pull bit, 1 1/2 hours. Treated mid with 10 sacks hulls, 18 sac 5 sacks tuff plus, clay gel, salt gel, gasum, and preserv Weight: 9.4-9.9#/gel.  Viscosity: 44-52 sec. Valend Drilling Cake: 2/32" Salinity: 300-350 ppm pH: 7.0.  Drillers for Gec. Valend Drilling H. B. Clements T. T. Glezebrook	ie 21 and la
Drilled of Lost circulation at 1381, 150 bbls. Fulled 5 a dit of mud and got full returns. Went beek in hole, mad circulation at 1386; notal time 8 1/2 hours. Started pul bit, 1 1/2 hours. Treated mid with 10 sacks hulls, 18 sac 5 sacks tuff plus, clar gel, salt gel, groum, and preserved Mud Summary Weight: 9.4-9.9#/gel.  Viscosity: 14-52 sac: Water Loss: 5.2-7.0 Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Volend Drilling H. E. Clements T. T. Glazebrook	ie 21 and la
Drilled 66', Lost circulation at 4381', 150 bbls. Pulled 9 a dit of mud and got full returns. Ment back in hole, mad circulation at 1386'; total time 8 1/2 hours. Started pull bit, 1 1/2 hours. Treated mud with 10 sacks hulls, 18 sac 5 sacks tuff plus, clay gel, salt gel, gasum, and preserv Weight: 9.1-9.9#/gsl.  Viscosity: ht-92 sac: Water Lose: 5.2-9.0 Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Noland Drilling C.  Lewis H. E. Clements T. T. Glezebrook	ie 21 and la
a dit of mud and got full returns. Went back in hole, mad circulation at 1,386; notal time 8 1/2 hours. Started pul bit, 1 1/2 hours. Treated mud with 10 sacks hulls, 18 sac 5 sacks tuff plus, clar gel, salt gel, gasum, and preserv Weight: 9.1-9.9#/gel.  Viscosity: 11-52 sac: Vater Loss: 5.2-7.0 Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Sec. Velend Drilling: 1.  Lewis H. E. Clements T. T. Glazebrook	ie 21 and la
a dit of mud and got full returns. Went back in Nole, mad circulation at 1,286; notal time 8 1/2 hours. Started pull bit, 1 1/2 hours. Treated mud with 10 sacks hulls, 18 sac 5 sacks tuff plus, clay gel, salt gel, gasum, and preserv Mud Summary Weight: 9.4-9.9#/gel.  Viscosity: 14-52 sac: Water Loss: 5.2-7.0 c. Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Welend Drilling 1.  L. Lewis H. E. Clements T. T. Glazebrook	ie 21 and la
bit, 1 1/2 hours. Treated mid with 10 sacks hulls, 18 sacks tuff plus, clar gel, salt gel, gosum. and preserv  Mud Summary Weight: 9.4-9.9#/gel. Viscosity: 44-52 see: Water Loss: 5.2-9.0 Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Volend Drilling  L. Lewis H. E. Clements T. T. Glezebrook	
bit, 1 1/2 hours. Treated mid with 10 sacks hulls, 18 sacks tuff plus, clar gel, salt gel, gresum, and preserv  Mud Summary  Weight: 9.4-9.9#/gel.  Viscosity: Li-52 sec. Water Loss: 5.2-7.0 cc. Cake: 2/32" Salinity: 300-350 ppm pH: 7.0.  Drillers for Gec. Volend Drilling L. Lewis H. E. Clements T. T. Glezebrook	ne for the
Mud Summary Weight: 9.4-9.9#/gpl. Viscosity: 44-52 sec. Water Lose: 5.2-7.0 Cake: 2/32" Salinity: 300-350 ppm pH: 7.0.  Drillers far Gec. Volend Drilling H. E. Clements T. T. Glazebrook	ks fibras
Mud Summary Weight: 9.4-9.9#/gal. Viscosity: 44-52 see: Water Losc: 5.2-7.0 Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Volend Drilling: 4. Lewis H. E. Clements T. T. Glazebrook	etive.
Weight: 9.4-9.9#/gal. Viscosity: L4-52 sac. Water Losc: 5.2-7.0 cc. Cake: 2/32" Salinity: 300-350 ppm pH: 7.0.  Drillers for Gec. Volend Drilling L. Lewis H. E. Clements T. T. Glazebrook	* * * * * * * * * * * * * * * * * * * *
Viscosity: LL-52 seed Water Loss: 5.2-9.0 cd. Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Welend Drilling C.  Lewis H. E. Clements T. T. Glezebrook	
Water Lose: 5.2-9.0 c.  Cake: 2/32"  Salinity: 300-350 prm  pH: 7.0.  Drillers far Gec. Welend Drilling C.  Lewis  H. E. Clements  T. T. Glazebrook	and the second
Cake: 2/32" Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Welend Drilling Co.  L. Lewis H. E. Clements T. T. Glazebrook	
Salinity: 300-350 prm pH: 7.0.  Drillers for Gec. Welend Drilling Co.  Lewis H. E. Clements T. T. Glazebrook	
pH: 7.0.  Drillers for Gec. Noland Drilling Co.  A. L. Lewis  H. E. Clements  T. T. Glazebrook	
Drillers for Gec. Noland Drilling  L. Lowis  H. E. Clements  T. T. Glazebrook	
H. E. Clements T. T. Glazebrook	
H. E. Clements T. T. Glazebrook	1
H. E. Clements T. T. Glazebrook	
T. T. Glazebrook	
	- t- 4 ·
B.O. E. Checked Maily	* *
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	<b>.</b>
CONDITION AT BEGINNING OF PERIOD	en gelogië i Piran Englishe
HOLE CASING SIZE DEPTH SET	
SIZE FROM TO	t e e e e e e e e e e e e e e e e e e e
1/4" 0 1/20231 9 5/8" haz:	
7/8" 1023" <b>3857</b> 1	

North Boundary Butte San Juan, Utah

DRILLING REPORT

February 13, 1955

Section 33

T. 41 S., R. 22E., S. L. Mi.

(COUNTY)		Y)		(TOWASHIP OR RANGHO)
DAY	DS	PTHE:		
	FROM	70	REMARKS	
-				
2/7	11/140-	4538	Drilled 98'. Find the command out of hole and	
			7 1/2 hours (Had to them water lines during on samples, 1 1/2 hours. Treated multiwater starce,	
			1	Some Syptomic Transfer of the second
5/8	÷ 4538 ∈	4594	Drilled for Worked on jump, 1/2 hours Circula	ited for drill stem test,
	`		2 hours. Pulled out of hole, 2 hours. Unleade	and made up test tool,
			2 hears. Ran in hele with tool. 1 1/2 hours. DST #2,4367-4548, Johnston testers. Ran tester	r with dual Bobtail backers
ì			at 4300 and 4367, three dutside pressure recons	
		A to a	perferations 43671-44097 and 45301-1548; no wa	ater cushion. Tool open
		the same	1 hour 13 minutes, s'nut in 30 minutes. Very we	
Ì			minutes. By-passed packer twice with no succes loss in annulus 6: (.44 bla.). Recovered 150	
			Feet Above Salinit	The state of the s
			Tester Description (t) NaC	
			Drilling Van 330	9.4
			Tool Drilling Mud 4 412	9•4
			Directing and	Calling of the Call
			IFP 120, FFP 120, SIP 130, HF 2226.	
	•		150 150 195 / 2220 /	
	4.0		Mud before test 9.14/gal., 330 pr.m.	
	9.1		Pulled tool, 2 hours. Broke down and scaded too	ol. 1 1/2 hours. Ran in
			hole with new bit, 1 1/2 hours.	
0/0	4594	1.400	Shell and the Council Cold Cold To the Land Cold Cold Cold Cold Cold Cold Cold Col	Part 3 and a second
3/9	4574	1 4050	Drilled 9', Cored 23; Circulated prior to coring of hole for core parrol, 2 hours. Picked up and	d checked core barrel and
	2		jors, I hour. Non back in hole for Core #1, at	4603 , 2 hours. Circularia
× .			ted, 1 hour. Cored 15 hours. Hycalog released	and Rotary Engineering
		3 P	installed at 12:00 mid. Treated mud with gype starch.	sum, preservative and
			Scarch.	
2/10	14626	4640	Cored 13', Drilled 1'. Cored, & hours Pulled	t Core #1, 4603'-4638'
			recovered 35', serviced core barrel, 1/2 hour. #2, 1 1/2 hour. Cored 1' 4 hours. Pulled Core ered 1/2'. Dressed core parcel, 1 1/2 hour. Re	Ran back in hole for Core
			#2, 1 1/2 hours, Cored 1 4 hours, Fulled Core	#2, 4030'-4639', recov-
			bit, 1 1/2 hours. Drilled 1. 1 hour. Fulled o	out to take Core #3. 2 1/2
			hours. Treated mud with supsum, preservative, s	salt gel, and mylogel
		1 ne	starch.	
	HOLE		BEGINNING OF PERIOD	
SIZE	FROM	то	SING SIZE DEPTH SET	
	- <del> </del>  -			

DEGINETING OF PERIOD							
	HOLE		CASING SIZE	DEPTH SET			
SIZE	FROM	то					
12 1/4"	0,1	L023	9 5/8"	1015.			
7 7/8	1023	իդիօ					
	4.						
DRILL	PIPE 4	1/2",	16.0#				

North Boundary Butte (FIELD)

San Juan, Uta

HOLE

FROM

7 1/8" 1023 4440"

BIZES 1 2/2",

SIZE

12 1/4

TO

1023

CASING SIZE

DEPTH SET

1312

DRILLING REPORT

Cehruary 37 . 1955

Section 33 3

S., R. 22E., S. L. M. 1.42

(COUNTY)		TY)		(TOWNSHIP OR EARCHOY
DAY	PROM	PTHS	REMARKS	
2/11	4610	4653	Cored 131. On in hole with magnetic basket, 2 Ad	
			with basket, I nour. Came out with lesket, I hour i hour. Gored 7 1/8 x 14 mmm, a hour. Gored 7. hoho-help: cored of reconstred his Serviced has back in sole with sore harrest for Core #4, 1 1 bottom, 1/8 rese. Cared, whiles. Treat i multiplicated starch.	d, I hour. Pulled Core core parrel, I hour. 1/2 hours. Washed to
2/12	4653	h571	Cored 18: Cored c hours. Pulled core A., hou6-lovered 1h: Dumped core, I hour Services core be drilling line, I 1/2 hours. Resemble for Core to bottom, 1/2 hour. Cored 9 1/2 hours. Started 4671:, I hour. Treated must with sait gel, started tive.	#5, 2 hours. Moved #5, 2 hours. Dished i pulling Core #5 at
2/13	4671	4710	Gored 12'. Drilled 27'. Finished pulling Core #5,	16601-ho711 cared 1
			recovered 11. Serviced core larged and set aside, hole with bit and resmed to bottom, 2 1/2 hours. Came out of hole 1 1/2 hours. Fished up and large hole for Core #6, 2 hours. Washed to bottom, 1/2	l hour. Pan into: Diroulated   1/1/hours. rul and ran back into
			D. C. M. checked daily.	
			Drillers for Goo. Holand Drilling Co.	<b> </b>
			H. E. Clement 1. F. Glazebreck	
			Mud Sum ary Weight: 9.4-9.7#/gal. Viscosity: 40-59 sec.	
			Water Loss: 7.4-14 cc. Filtar Cake: 1/32"-2/32" Salinity: 350-600 prm NaC1	
	ÇO	NDITION AT	BEGINNING OF PERIOD	

2-50 PRINTED IN U. B. A.

#### SHELL OIL COMPANY

North Boundary Butte (FIELD) San Juan, Utah

DRILL PIPE 15" 16 6#/14.

DRILLING REPORT

February 20, 1955

Section

1/2 S. /22 R SIM

	(COUNTY)				- San - Table - San - Sa	(TOWNSHIP OR RANGED)
DAY	DE	PTH <b>S</b>				The second secon
	PROM	то	-	REM	ARKS	
2/14	4710	1784	DRILL	ED 601, CORED 11:	in nonre corcollate	d samples and conditioned
				chain. CORE#	et baul dore barrer	. a hour repaired oiler and a
2/15	4784		DRILL	sure to rel Backed out the crown.	ease in Johnston her topisingle in infli- No damage was infli	test tool. A hours ran 8 hours waited for present which was plugged. as and mud then blew to letted as he top single
1 TO Company of the second control of the se				and Johnsto cleaned up out same.	n head were chained rig. ? bours broke Pulled 630; of cil i	to the derrick. 2 hours down test tools and loaded. It ed drill stem, 2 hour y cut with hydrogen sulfide
			DST #	subsuriace and 1766-17 in, open 2 strong name suddenly af hour, dead Gas rate 110 rate increas 1 single be 17 minutes. Recovered of API gravity	pean, if surface best Surface best Surface best Surface best surface b	2-63 bobtail packers, oressure recorders, 3/4 and perforations 4662-4678 and perforations 4662-4678 and perforations 4662-4678 and to very strong, died very k 5 minute puff after lugged at tester head choke, pressure 40 psi, head plugged. Backed off en tiew oil and gas for gas to surface in 4 minutes say sulfurous oil, 400 brown black, with strong for water.
				540 450	browlish black oil	0.5 black sulfur water 15 black sulfur water
	CON	DITION A	T BEGINNING O		brownish black cil	34 BS & W (mostly black sulfide)
	HOLE	<del></del>	ASING BIZE	DEPTH SET	Notes : .ack su	lfur water cut prevents
SIZE	FROM	70			salinity	determination.
		023 710	9 5/8**	1012	Mud before test 6 IFP 1215 HMP 1230, after 70 Manates)	SIP 1550 (nearly stabilized UP 2325.

P. K. Murray

Exa	mined by	Sader		180 ·	Well Field or Area	l North Bo <b>un</b> dar	y Butte
FROM	ТО	%	SHOWS UNDE	RLINED	SAM	APLES LAGGED (NO	or)
20	110	100	Sandstone,	write, well-sortal.	subunguker, s ntod, slightly	me rosted qua.	rtz grains, 😘
120	140	100	Sandar de.	white, well-sorted. yellow matrix, some lous.			
140	150	Su	brade some,	an ntove.			
		<u></u>	Sandotono,	red, silty and ergille grains, slightly call		, well-sorted,cl	luar subangular
150	1.00	90	Sandstone,	as abo <b>ve.</b>			i kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kanalan kan Kanalan kanalan
		10	Siltstone.	red, seeds with save shale frequents.	oguler, olear, t	vell-sorted gra:	ins, few purple
100	190	<b>5</b> 0	Sandstone,	as above.			A STATE OF THE STA
		30	Siltstone,	ás above.			
		15	Shale, red	ish purple to purple.	. frieble, wel	dykedded.	

, r ,	Rueil	iass by .	Fright Smyder	180 to 7	Field or Area North Roundary Butte
	FROM	79	*	SHOWS UNDER	RLINES SAMPLES LAGGED (mot)
	180	190	100		red, fine to very fine, subangular to subrounded, well-sorted, slightly calcareous; some mica. Top Wingate +180
	190	200	100	Sandstone,	as above, some coarse quartz crystals, frosted to clear, submigu- lar to subrounded.
	200	220	50	Sandstone,	red, as above.
		·	5 <b>0</b>	Sandstone,	white to yellow, medium to fine, subangular to subrounded, well-sorted, slightly calcareous.
	220	230	100	Sandstone,	orange to red, fine to very fine, subangular to subrounded, rell- sorted; some white sandstone, slightly calcareous to calcareous.
	230	240	100	Sandstone,	as above, with few limestone fragments, gray, IVFA, and some coarse quarts grains. Trested to clear.
	5710	250	100	Sandstone,	as acove, no limestone.
	250	<b>26</b> 0	50	Sandstone,	orange, as above.
			50	Company of the last of the las	red, diminishing in quantity.
	260	280	100	Contraction of the contraction o	orange, as above, mostly unconsolidated, fine to very fine
	230	340	100	Sandstone,	well-sorted, slightly calcareous, friable to unconsolidated; some evaporites?
	340	350	100	Sandstone,	as above with rare calcite.
	<b>3</b> 50	360	100	Sandstone,	as above; some microconglomerate of coarse to medium amber quart grains.
	360	370	100	Sandstone,	as above, rare calcareous sandstone.
	370	1,90	100	Sandstone,	as above, some rounded, amber quartz grains.
	490	680	100	Sandstone,	orange to red, fine to very fine, well-sorted, subrounded to sub- angular, slightly calcareous, free quartz, coarse, freeted to clear.
	680	720	<b>1</b> 60	Sandstone,	as above few red siltstone fragments.
	720	730		and proper an extendion of the same	, red, sandy, fine grained well-sorted, subrounded.
		·*	20	And the control of the last of	, as above.
	730	750	90	Sandstone	, red to orange fine to very fine, subangular to subrounded, well sorted, some white mottling.

#### BITCH BAMPLES

	Eng	mined by	Wright Snyder	taliatette distilled	9bc	Pield	West	NOFEN SO		
	PROG	70	%	BHENS UNES	RLINED		SAMPL	55 L0909		4
. ~	750	770	100	Sandstone,	as above, with some	brown	sandstone;	nottling	indrease	s to 18%
	770	? <b>80</b>	100	Sandstone,	red to orange, very above.	fine,	subrounded	, some si	Ltetene	no ttled as
1	700	810	95	Sandstone,	red to orange, very occasional white m			ubround <del>e</del> d,	well-ser	ted, with
			5.	Siltstone,	red, slightly calca	reous.				
•	310	820	50	Sandstone,	8.2 A.O.C			,.		
-			50	\$403,20000.	reddish brown, sold	у межу	r fine⊹grax	r.ed.		
1.	820	330	50	Timestons.	on <u>a ligane</u> , while hud l <u>ad collecte,</u> publishly	snole geomi	weins and high nituera	some quar	ts pebble	inclusion
			30	Seedate	AL MOVES			<b>.</b>		
			50	Siltstone.	as above.	**		in the second	er gest	
	830	8h0	50,	Sandstone.	reddish orange, ver	y fine	to silty,	supreunde	d, well-s	orted.
			30	Sandstone.	light green very f stone or shale vein		icrounded,	calcareou	s, with a	ed <u>silt</u> -
	:		20	Sands tone,	light green, very f	line, si	ibrounded <sub>s</sub>	well-sort	ed, calca	.Teople
	8140	3 <b>5</b> 0	60	Siltstone,	readish brown, sand	iy, calc	careous, gr	een mottl	ing	
			40	Sandstone,	red orange, as abov	∕e <sub>e</sub>			as and a	
	850	850	80	Siltstone.	as above, some brow	m.				
			20	Sandatione.	red orange, very fi	ne to s	silty.			
	<b>86</b> 0	870	80	Siltstone,	brown with green mo	tCling,	, calcareou	is to slig	htly calc	areous
			20, 4	Siltstone,	light red with gree	en motil	ling, calca	reous.		
	870	880	90	Siltstone,	brown, as above.				e to	
	· ·		10	Siltstone,	light reas which mot	itling a	as above. s	some calci	4.	
	880	390	100	Siltatone,	red to brown, with	green	mottling,	calcareou	<b>S</b> •	
•	<b>8</b> 90	900	100	Siltstone,	reddish brown to 14	ght bro	own, some g	reen mott	ling, cal	careens.
-	900	910	100	Siltstone,	as above; some sand	istone,	green, cal	careous.		
	910	930	100	Siltstone	red brown to light	brown,	as above.		18	**************************************

Examined by		Wright Spyler	The state of the s	Well _ Field or Area _	North Jour	and and
FROM	10	%	SANGE ENDERLINES	SAM	PLES LASSES	(not)
9140	950	60	Siltstone, red brown,	calcareous, as above.		
		40	Siltstene, brown, as a	Sove, some light yellow	limestone,	IVFA.
950	960	70	Siltstone, red brown,	as above with some mottl	ing.	
		30	Siltstone, brown, as a	hove.		
960	970	80	Siltstone, red brown,	as above.		
		20	Silvatoria, brown, ss s	.bn <b>ve</b>		•
970	980	70	Siltstone, red brown,	sa abore.		
		30	Siltstone, brown, as	Roves		`*** *** ***

Exa	nined by Wing	Field or Area Horth Boundary Butte
FROM	Fig. 70 %	SHOWS UNDERLINED SAMPLES LAGGED THOTAL
. 980	1010 100	Spile, red to red rarbon, well-boderd, lastrette, boft to medium, appropriate importable, nor-entergone.
2020	1020 107	g issterm, not that, stightly release s, with the limitations inclusives.
1020	H. H.	Ellistane, as stores
		Since, red com, lacors,
•	2.)	Sold a view, and in the schame, wearn savillables s.
1040	<b>10</b> 60 %,	Branche, and the second
	20	Simile, la cosa,
10,50	1070 .0	Still be and the property of t
	10 mg/r	Santa es elle.
1070	10.10 30	State of the state.
	[]/)	la la tratura, un la recers.
	€1 (4) • (2)	Gravistana, mai, v ova a grindera de la destinova.
10%	2000 - 20	Small bearing.
	50	<u>und produktion in a somethar, norm of correct, aromalars</u>
1070 -	51.h0 100	Shows the lower of learning were the second of Prophype becalcareous
1140	2,80 100	Should, that had while, with more the limitation notates, appears recement
, ijo	11.0 1.0	Same and the second of the sec
1100	111/0 100	$\Theta_{\underline{S},\underline{S},\underline{S}}$ that we have the state $oldsymbol{s}$
1,70	1180 100	<u>Simile,</u> as olders file, endorreput
	1190 5.0	Shale, Light well flagger of norms.
	6) 	Sucio, and, compact an imaliant to the first, that, they and white, with ten
11,70	1210	Shifte, tagal red, solo, masic.
	s	In markers, the gorder, and a succession of the
1210	1220 100	Shole, or shows light mal.

Exa	nined by	Field: Smyde:	W(1)
FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED ANOTE
1220	1230	100	Shake, as above light rel, bentonible, calcareone, mushy.
1230	1240	100	Shale, light red, silly, very calcareous with few pieces limestone, mottled gray.
12li0	1200	100	Limestone, light purple, noteled grave very togilla sour.
1280	1290	100,	Limertone, becoming trown purple. IllF to MA, part delenitie.
1290	2300	100	Limestone, as above, mottles gra-
1300	1320	100	Shale, light red purple, mottled gray very carcareaus with red streaks and ten limestone nodules.
1320	2330	[100	Shale, as enore with a casks of smale opaque chart.
2030	1540	100	Lamestone, why let IT: FA, mobiled light gray was rare gray brown nodules.
1340	1420	1.00	Limestone, perple, as titled light are some sore sown nodules, III FA.
1427	1430	.100	Shale, light red, notitled gray, very reserved, very mounitie.
11,30	2.40	jo	Sinde, as above.
		20	Sandatione, purrie.
1443		60	Shale. Light rod, bentouilie, service com
		40	Sandstone, light in d. v no block to state, when the naces tie, calcareous.
1450	1460	70	Shale, parale, soit, bartonitio.
		- 110 -	Shale, Light gray, benishitto, soft-
•		23	Shale, medium army, be durabae, marely.
1400	1400		Success and an experience of the second seco
		HC	Shale, wink, pentonutic, soft.
1480	1550	100	Sendstone, point, notified light array and process array fine to coarse, angular to suc-rounded, expressed continue.
1550	1560]	100	Share, variogated artic, light purite.
1560	1570		Samile micong.
1570	<b>1</b> 580 °	50	Shale, brick ro, micaceous silv.
		40	Sinle, light grow, fisky, som.
1350 -	1590	3.00	Scale, an above, v my silty.
1500	1300%	300	Shole, Vary egahed, red and amy, soley, call now use

E×o	minea by	Fig. 4: Smyden	Well
FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED (NOT)
1600	. 1620	100	Shale, red moule, very soit, micacoous.
1020	1630	· (;)	Strong, brick red, clast red, perote, green.
		80	Dinustone, within, terralomenation, sugar or to redi-rounded, with well-round
1630	المرافية	jo	<u>Statio</u> . Fight orang work, finding countrieses.
		1943) 1943)	Swic, this was the firing colorrooms.
1040	10/0	21	Simila, rec., ricka.
		25	Shale, light gray, floks.
		кģ	Limestone, Right grap IST WA, white.
		₹*	Somic, who disconstitutes a cooke, and frequence of pyrite and combonaceous materials, have from each in the poor spaces of ert.
1650	1090	Ro	Shelp, veriogeter grander, the law to member.
1.690	1700	₹¥ 1	Similar as the second for American second as the second
		20	Or Markey. The common and the grained, dairly well sorted.
1700	1715	Ġ.	<u> Prince Listing on, the my tertor.</u>
		20	<u>derlig</u> , da de perceja, maskiy.
			Southern a, exception of monthly preparation of locality.
1/10	, <del>-2</del> ey.	ese Peren	High light gray our ward, in the particulation modiled ochre.
1720	Mis		<u>Garage</u> and the state of the s
		20	Silvannille in the order of the country, slightly calcaracus, white and block views
11.30	in the second	ôC	Sonisue 16, a muste large of carroll of a carroll of configure one, white and black ones.
		ක	Figure order
1740	1750	100	Silban my specimentied grammer, colored s, gray and brown mica.
11.57	1700	<u>4</u> .3	Series, a serie years,
		774 217	Salburane, cartave.
		90	Dentations, write a maked of the room, three and angular.

Examined by Fields 1760to 2200 Soyder to

Well 1 North Boundary Butte

FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED CHOTA
1.760	1820	TOO	Sanustone, crange, fine to medium grained, angular to sub-rounded, poorly-screed, calcareous and bentonitie.
1820	1830	100	Sandstone, at above, year fine to fine, extremely bentonitie.
1830	1,860	100	Sandstone, orange, fine, regular to sub-rounded, partly calcareous with rare coarse, well-rounded, orange-stained, frosted grains.
1860	1870	80-	Shilo, alling theby.
		20	Suare, sumple, blocky.
1870	1950	100	Sandstone, as above, no coarse grains.
1950	1990	100	Shale, red brown, grav, purple, notiled, calcareuss, mushy, micaceous, becoming silty.
3.990	20 <b>20</b>	.50	Shale as above, salty.
		50	Sandstone, orange, fine, enotion to sub-rounded, calcereous.
2020	2050	100	Sandatione, as above.
2050	2000	<i>5</i> 0	Shole, light grow, soft, mus y, o deareous.
		25	Shale, light med, muchy, calcarectic.
		25	Shala, purple, officerecus.
2060	2080	100	Smidstern, crange, find, sub-rounded, and classes.
2080	2090	80	Shale, reddish purple, light nottled gray.
		20	Sandstone, as above.
2090	2100	50	Sarle, as above, calcareous.
		30	Siltstone, cornege, calcareour, with order codules.
		20	Sandstone, carrie.
2100	2110	Cc	Shale, as above.
		. 710	Silistone, es alore.
2110	2170	100	Siltstone, as above.
21.70	<b>21</b> 80	100	Siltstone, orange red to brown, with ware sub-rounded sandstone grains, mottled gray.
2180	2190	100	Siltstone, red brown to brick relation wray white mottling, non-calcarecus.
2190	2200	1.00	Silustone, as above, becoming partly argillaceous.
.*	5.00		

	E×a	imined by	Fiel Snyd	
	FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED 44-01)
	2200	2220	80	Siltstone, as above, but not so argillaceous.
			20	Shale, red to crown, blocky, calcarecus
	2220	2230	50	Siltstone, as above.
		, Ta	30	Shale, as above.
			20	Shale, tan to light prown.
	2230	2240	80	Siltstone, as above.
			20	Shale, red to brown, blooky.
	2240	2250	100	Siltstone, as above.
:	2250	2260	100	Siltstone, as above with streaks of brick red shale.
	2260	2270	60	Shale, medium gray to lavender and purple.
		•	40	Siltstone, as above with subrounded quartz grains.
	2270	2280	90	Shale, as above.
			10	Siltstone, as above with rare sub-angular quartz grains.
				2160 - 220: Less than 1% fluorescence on siltstone and cherty microconglomerate, patchy to bright yellow cut fluorescence, very pale to pale brown cut.
	2280	2290	100	Shale, as above very calcareous.
	2290	2350	100	Siltstone, dark crange brown and mottled light green, slightly calcareous with occasional fine to medium sub-angular sand grains.
	2350	2360	100	Siltstone, as above, becoming slightly argillaceous and more calcareous.
	2360	57100	1.00	Siltstone, as above, slightly argillaceous, calcareous.
	2400	2410	100	Sandstone, light to dark brown, orange brown, fine to medium, sub-angular to sub-rounded, calcareous, micaceous, argillaceous.
	2410	2420	80	Sandstone, as above.
÷.			20	Siltstone, as above.
	2420	2430	100	Siltstone, as above, very micaceous (chlorite in part.)
	2430	2450	30	Siltstone, as above.
			20	Limestone, green gray to lavender, mottled purple, IVFA, argillaceous.
	2450	2460	90	Siltstone, as above.
			10	Limestone, as above.

Examined by Fields Lasto for State

Well

North Boundary Butte

			10	Field or Area Boundary butte
FRÓM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED (NOT)
21:50	2470	50	State one, as well a	
		D.	Shows the description of the	vár. se v
2470	21,80	70	Sindstans, in the strong wages	rguleo xus
			A de la companya della companya de la companya della  romane modulų bilos <b>v</b> y vil <b>ity.</b>	
. <sup>1</sup> 1/480	2510	100	Britishing, address, various	nna ang mga mga mga <mark>na mgo us.</mark> ili na mga mga mga mga mga mga mga mga mga mg
2530	2520	Ĝ <b>C</b>	<u>Ar Setone</u> , or mar brisanto dal Bespus, stiny siny siny	re. them. with the carebus, very argilla-
		30	Limitione, ory a to red limit	. IT'A, argo Leneuro.
<b>252</b> 0	2530	60	Stindless, earlore.	
		, kiO	Time Lame, one, e red in come	don 17 i to 164, Lutin prince
2530	<b>2</b> %0	3.00	Seculations, adjusted at the second	in service.
2550	2560	50	<u> Salidin e,</u> au mere, cermeno	elic displayed into the Marks
		50	$S_{\mathrm{LC}(\mathcal{D}_{2})}$ , where $b_{\mathrm{LC}}$ is the constant	er party character by very silty.
2560	2580	7.3	San bettern, he similar	
		Dec.	<u>u la serie de la compa</u>	
<u>.</u> 2581	9490	e deservice La sed	<u> 3) 1, tone</u> (e. di 1).	
	•	آور	Control of the second	
<b>2</b> 590	5%	* 12. 2	<u> 311 2004-00</u> - 80 - 17 - 17 - 1	
		ón	Section 1995 Annual Contraction of the Contraction	
2500	O.Eco.?	50	A Company of the Company	
		4.3	Jackson, as Sover	
2010	<b>2</b> 39	1.17	<u> </u>	
			<u>31</u> 7 july 12. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	
2030	iloho	10.		12 69 x
25HO	2650	it is	State, of the sewing the	
2650	2660	δÔ	. <u>81 ta. 13</u> 190 a, 1 11	nie aktiu siti greek indutoions.
		l <sub>i</sub> o	Savie, as or a.	

			District the property of the p	ITCH SAMPLES		· Land of the second of the se
Ex	ami <b>ned by</b>	Field Snyds	<u>ds 32660 to 2846</u> ≥r to	Well - Field or Area -	Nonte Boundar	y Butte
FROM	TO	%	SHOWS UNDERLINED	SAM	IPLES LAGGED (N	от <sub>1</sub>
2660	2670	50	Silestone es occue, mi	naceous.		
		30	<u>Santo,</u> su sione			
2670	2680	70	Shoke, Av Bove.			
a a		آور آ	501 545014, 45 1 10 1 , 10	C 131988.		
2680	2690	Ø.	Share, was bring to be set	The no green a dilling		
		8		ರಾರಕವಾಟ (ಗೆರ್ಟ್ಫಕಾಕ್, ೨೩ <b>೦</b> ೫	usions.	
2690	2700	100	Soals, os plove.			
2700		,10n	Shale, cannge brown, de with Laphy green.	n brom, bilak rad, vo ralberima inelacions	err calcareous, and mottling.	very silty,
. ~ 2/40.	- 2,750	3e	Shalo. as Awar.			
		50	<u> 21 12310.5,</u> smol est co	sant brows. Chickeecos	, ver srgnilac	eous, micaceous
2760	2370 		- <b>S</b> halle, an observe.			
		ĵü	Siltsone. We have	o g <b>ree</b> n dillogende sool	20 (90 <b>).</b>	
<b>27</b> 70	27.30	50	Disto, Course, 14 a.	Dodre e in Albantoria.		
		. 25	211+34-26, and the			
		25	1. Damani rasa, an anna ang a		· · · · · · · · · · · · · · · · · · ·	en en en en en en en en en en en en en e
2780	2790	luc -	- <u>Sc. 2</u> . 13 h v 14 h V 15 j. 3	yarete inclusione		
2790	2800	130	Since, as indone, a	min se <b>gadi</b> lah ne.		16 (14 (14 (14 (14 (14 (14 (14 (14 (14 (14
2800		75	, <u>Sikile</u> , po epotravija, <u>ra</u>	nggrine amibusachak		
		75	<u>.</u> Digit <mark>ico, gree</mark> n graș un	espio, teo, constany	gross, blive, I	VYA.
2810	2820	60	Shale, in elector			
		30	Dolomoto, is above.			
		1.0	Anlydrois, with, organ	√m d γ . grb=		
2820	2830	50	Salar, or election			
		35	- Lamantone planes, IVFA.			
		15	Arendm to, as love.		•	
2830	2000	ċ!O.	Seed at the seed of the seed o			

20

Exa	mined by	Fields Stry let	<u> </u>	/ell _	1 North Boundary	Butte
FROM	то	%	SHOWS UNDERLINED	SAM	PLES LAGGED (N	40%
58110	<b>2</b> 850	 40	Stable of others.	,		
		<b>2</b> 0	Separatena, ad promo a no brown me read for me have for	n j.	ora, micase	aus, finn bo
		20	Delication, classes to footb			
		-10	Anby Thile, are cover.			
2850	2860	100	Siltacene, brown, rein meson and examin.	<u>. 5</u>		
.2860	2870	%)	Standarde, translation			
		30	Spainten, come as			
		20	A british white, he sale no			
2870	2830	50	Silvernia, le silve.			
		3.0	Sanduteno, au eleve.			
		20	Angedrite, as Sym.			
<b>2</b> 860	28 <b>9</b> .	30 m	<u>Sincre</u> on the co.			
		30	<u>\$27.00</u> 57.39. The April 1			
		20	Smart ma, as a con-			
		50	introduce . The first			
2890		60	Siltotoma ee li /.			
		Ĵŵ	Spile, es desse.			
		10	<u>Apayinja</u> kadan kan			
2970	29.54	io.	State to be, and age of the control		i nas, was	r <u>onig delte</u>
2930	2940	50	<u>51. 186 - 10. 19 5 100 - 1</u>			
		30	Section section of the many, large to mean the	. •		

Exan	nined by	Fictas Sayder		3
FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED	<b>*</b>
<b>2</b> 540	2950	un	Stitus in the contents order out to move with animorite, angillachous,	nicececns.
		20°	Shalay warm acissamons, blooky, sitty.	
		19 (S)	Pravidto, tem es aight may green, 1VFA	
1950	10,50	jaj v	Miss the actions, where any to the inclusions.	
		30	Dolomice, as whore. olive red brown.	
		20	Siltstone, as above.	
2950 .	2970	ec.	Saltsione, of Alove.	
	•	20	Delonito, en above.	1
2976	3990		<u>Studiotomo</u> , as significados	
		1 × ( ·	Delegies an above, however or known our timestone in parts	
<b>2</b> 960	groo	A sec.	Silvinge, as a for .	
		34	<u>Joloni o, sur rêtove,</u> strout sur resul	
		30	introducto, elimino, grandoro.	•
2900	1. 1. 1.		Calustane, as opones	
		J.C	Bok gitz, gis in to high and mon. 198%, amount to Limestone.	
		20	Anagorate, white, mottles green	
<b>3</b> 000	31.2	50	Sintenne, es above, very anniller with.	A STATE OF S
		<u>20</u>	Spair rad, not wed promotes who wrame singlitly order radus, blocker	to fissile
ı		-	Important, chive, hill-fill fil.	
•		10	Dilemite at Abore.	
3010	3020	40	Silvstope, rakonom,	
			Signate, las above.	
			Stale, gramme now and Urana, and opens	
		10	Di <u>lonite,</u> as obove.	
(3)26	11 V 11 V	17M)	Limestone, obsequence IVMA-III 2PA, octomicia, sendy, micacecus, atmicacecus,	, with

Exc	mined by	Field Murra	5 30 <u>L0 to 3270</u>	Field or Area Forth Boundary Buttle	
FROM	ТО	%	SHOWS UNDERLINED	SAMPLES / LAGGED	
3040	306 <b>0</b>	50	limestone, light clive green	n, IVFA	
e de la companya de l		50	Dolon te, dark olive green,	III VFA, with abundant crystalline anhydr	ite.
3060 ·	3080	100	Sitstone, brown, wery calca and anhydrite inc	areous, argillaceous, with abundant mica clusions.	e sair
3080	<b>3</b> 090	80	Siltstone, as above.		
		20	Anhydrite, granular to cryst	talline.	
3090	3100	70	Siltstone, as above.		
		20	Anhydrite, as above.		
		10	Dolomite, light gray to cliv	rig groon, IV.Y.	e garage
3 <b>10</b> 0	3110	100	Limestone, white, gray, tan,	• • • • • • • • • • • • • • • • • • •	
3110	3120	80	Siltstone, as above.		
*		20	Linestone, as above.		
3120	3130	100	Silistone, brown, very calca	areons, sandy.	2
31.30	<b>3</b> 170	100	Siltstone, prown, very calco	areous, with abundant an deite, sandy.	
3170	31.80	60	Siltstone, orown, very calca	areous, sandy, with anhydrice.	
· go.us		40	Shale, purple and motiled or	reon, with abundant anhydrate.	
31,60	3± <b>9</b> 0	1,0	Shale, as above.		•
		70	Siltstone, as above.		
		20	Lamestone, wink, mottled ligh	ght grov. IVPA.	
3190	<b>32</b> 00	50	Shele, es above.		
The second secon		50 j	Siltstone, as above.		
<b>3</b> 200	3210	140	Shale, brown, calcareous, blo	locky, micaceous.	
		30	Shale, green, with animari'e	e inclusions,	: ::
		30	Shrie, purpic and motiled gre	reon es above.	
-3210	3226	100	Shale, light green, brown, la	laverder, surple, slightly colorreous.	
3250	0230	- 60	Shale, pink, blocky, very cal	alcareous, with anhydrite.	
	***	30	Shale, variegated, as above.		
and the second second		6.8	<del>partitorial de la contraction de la contractio</del>	· · · · · · · · · · · · · · · · · · ·	*

4 d.	Exa	mined by	Fields Murray	3230 to 3320	Well. Field or Aseo	North Boundary But	te
	FROM	ТО	%	SHOWS UNDERLINED	SAI	MPLES LAGGED	
gen genagen genagen br>genagen genagen	3230	3240	100	Sinder argul thomas fine.	lavender mottling.	soit, mushy, calca	reous,
	3240	3250	90	Shate, as atoms.	,		e, ek, w•€
in and	· · · · · · · · · · · · · · · · · · ·		10	Limestone, waite, III VMA			
•	3250	3260	50	<u>-Samin</u> , as mooye.		•	
. 1			l <sub>i</sub> o ,	Discoulte, game green, 113	MaA, sandy, with s	oundent <u>enbydrite.</u>	
85	W. Andrews		10	Limestone, unite, Hant	ray, FID TM.		
	3260	3270	40	Shallo, as alove.			
			30	Siltstore, gmen, olimbil	v c Jerreons.		
			30	Silenone, Grown, coloare	সংগ্ৰহান <b>্তিবা</b> লি	anlydrite inclusion	ns.
	3270	<b>32</b> 80	(60)	Silvetone, brom, as	2. 2.		
			. 36	Signie, brows, priming die	કાર્યસ, સા દક્ષાસભાદ, પાઉ	il anlydrite.	
			10	Delemita, light was gree	. TVM, augusticasa	18.•	
		a a	÷ .	Ges in Mud: 3170-3200, h-5 Hysarog un 3200-3240, 2/0-10/0 Hresi 3276-3280, 2/0-4/0 hresio	AT NYA US		pla.
	3280	3290	ð.	Siltstore, brown, as also	To the second se		
•	e i		20 4	Dolordae, green, lif Wil,	state in gart.		
	3290	3300	70	Siltstone, prown, a amov	٠,		
34.		٠,	Ö	Shale, Dright creek, oils	needs. Modly, mica	1030113v	
*			30	Sandatime, light green, f	ble trained, sub-rou	inded, with anhydrit	e inclusions
				Gas - Muda 2280-31,18, 47	Ewenley Units		
	3300	3310	50	Samle, light brown, draw mushy.	new jih verker, esi	carecus, very silte	, soft,
			40	Silt stone, brown, calcarde anhydrite.	oos, verg orgillades	rs with some sand g	rains and
*			10	Shale. light gray, calcard	· cous		
	3310	3320	75	Shelr. light brown, dock l	prown, Edwarden, as	above.	
		<u>.</u>	30	Siltstone, as above, mich	) ១០០ <b>៤និ</b> ត		

Exon	ined by	Field Snyde	s 3320 to 3011	well 1 North Eoundary Butte
FROM	ТО	%	SHOWS UNDERLINED	NCT SAMPLES / LAGGED
3320	33.3C	50	Estitutione, as acove.	
		30	Snale, as above.	
		7 20	Limestane, gray to clive green, IV?	'As
<b>33</b> 30	3340	60	. Silus wone, we showe, he exherny brick	rad.
	· · · · · · · · · · · · · · · · · · ·	20	് <u>രാസ്യം</u> കുട പ്ര <b>ം</b>	
		10	Samistons, red, fine to be read, sub	ergeriar, slightly calcureous, micaceou
	,	10	Invistance, white to read, III Ma	
5340 °	3500	80	Siltatone, as above, with commant	sond gr ins.
	*	15	Samustone, red to brown and thive.	in the antirite inclusions.
. •		ď.	Arivorita, white, crystalline so gr	หรองวิกทะ เรื่องวิกทะ
3350 .	3350	<i>(-6)</i> .	Normstone, clive, HD UFA, in gort	ar jilla <b>ceous.</b>
		1,0	Delocite, light gray, gran gray, I	W.A., with anhydrite inclusions.
<b>3</b> 360	3370	50	Sharing, meditus to doubt grave, with go	n varite inclusions, silty in part.
		30	Silbstone, as slove, heccming very	sacty.
		10	Dolomate, as above.	
***		10	Annydrite, as above	
3 <b>370</b>	3385	50	Shale, as above, becoming very colo	carecus.
		3Ó	Siltsume, as a cre	・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・
<b>6</b>			Dolomite, as about.	
		10	Aubrari to	
<b>33</b> 80	3390	<b>်</b>	Swith, as above, brow in these	
	3400	$r_{i}()$	Dougrate, os obeve, temp tanta.	
(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		<b>i</b> 40	Shale, is above.	
3400	31410	) (60 )	The Transfer control of the Control	andy, calcareous with annydrite inclu-
		20	Spale. As above.	
		20	Shale, brown to deriviting the release	ous.

	Exa	mined by	Fields Snyder	3430 to 3530	Weil Field or Area	1 North Boundary Butte	• <del>1 • •</del>
	FROM	†o	%	SHOWS UNDERLINED	SAI	Not MPLES/LAGGED	
	3410	3420	70	Siltstone, as grove.	<del>,</del>		
			30	Shele, light brown to dark bro	own as above.		
	3420	3430	: <u>(</u> (0	Silistone, as above.			
			40	Surle, plive, very pulcareous.	. mottled gray.	with mhydrite inclusions	
	3430	5440	50	Shale, as above.			an∳ s
			30	Shale, light brown, dark brown occassional sand grains		alcareous, micaceous, soft	<b>wit</b> h
			20	Ashadrite. (brown scale with	anhyorite inclu	sions).	
- 3.	3440	3050	βιO	Shale, blive, spictore.		• • • • • • • • • • • • • • • • • • •	•
			1:0	Shale, night brown, as chove.			ig de
			20	Silts mo, sa move.	8		
	3450	<b>3</b> 460	, 60	Shale, olive, very calcareous,	incaceous.		
			40	Shale, isvender to purple, sli crystalline anhydrite.	ighti/ calcareo	us, mottled ray with much	
	3460	3470	, <b>7</b>	Shate, red, mottled gray, sof	t, with anhydri	te inclusions.	
		a#i	20 🔧	Shele, olive, as above.			
			20	Shale, brown, as above.			
•	3470	3/180	50	Shele, olive, as above.			
			30	Shale, red, as above.	· · · · · · · · · · · · · · · · · · ·	r de la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la co	
			<b>2</b> 0	Shale, brown, as above, very	inndr.	and the second of the second o	
	3480	3490	100	Shale, der's red brown, so t, a mothled grove.	milty, celcared	as, with enhydrite inclusi	ons,
٨.	3490	. 3500	ьо	Shale, as above.			
			30 3	Shale, yellow brown, rottled :	ed, Slightly o	alcareous, blocky, sandy.	
			30	Dolomite, olive to yellow brow	wn, IVSA, with	cccasional coarse sand gra	ins.
· .	3500	3510	00	Shale, yellow brown, as above	with few small	anhydrite inclusions.	
			lio	Shale, red brown, lavender, pu	urple, mottled,	blocky.	•
	w.t	in the second of		•			

ilar. N	EAG	inires by	Snyder		Field or	Well No	orth Bound	ary But to	
	FROM	ТО	%	SHOWS UNDERLINED		SAMPLE	Notes S LAGGED,		
	3510	3520	. liti	Side, red brown, ligar b	row., motuled	may, ver	y calcare	ous, soft	silty.
			25	Siltstone, gray brown to	oli e, slighth	v calc <b>are</b>	c.s, with	mica and	salci te
		ı	35	inclusions, ve Siltatone, brows, calcare	ry Tightlaccob. Cos, Sandy, Ma	sachous.			
	3520	3530	?5	Siltstone provm, as above	ۥ				•
4			25	Shale, as above with trac	e coarse send	eradns.			
	<b>3</b> 530	3540	<b>6</b> 0	Siltstone, brown, as abov	e.	•			
دون		3 - A	30	Shale, brown to grown gre-	w. moltle: goo	r, very c	lcareous	, soft, si	alty.
			10	Limistone, grav, reen, T	yy <b>k</b> .	• 🐔			

£xı	amined by	Fields Snyder	3300 to 3695 Well 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
FROM	10	%	SHOWS UNDERLINED SAMPLES LAGGED beginning 3600.
			Gas: Mud, 3280 - 3510, 0-4 Hycalog units  3510 - 3540, 3-10 Hycalog Units  Cuttings, 3250 - 3540, 0 Eyealog Units
3540	70	100	Siltstone, brown, as above, in part mushy.
3570	85	100	Siltstone, brown, calcoreous, argillaceous, with such white mica and some sand grains, soft, no anhydrite.
<b>35</b> 85	90	100	Siltstone, as above, with anhydrite inclusions.
<b>3</b> 59 <b>0</b>	3605	100	Siltstone, as above, no anhydrite
3605€	10	60	Siltstone, as above
		. 40	Shale, brown, abundant calcite, silty, mushy.
3610	15	50	Shale, as above
	3.4	50	Siltstone, as above
<b>3</b> 615	20	100	Siltstone, as above, becoming very calcareous and very argillaceous, soil
362 <del>0</del> ≈	<b>2</b> 5	60	Shale, as above
·		40	Siltstone, as above
3625	65	100	Siltstone, as above, but harder, very calcareous
365	80	100	Siltstone, as above, with soft anhydrite inclusions
			Shows, 3660 - 70, 10% yellow fluoresence, yellow to bright yellow cut.  fluoresence, very pale brown cut.  3670 - 75, 40% yellow fluoresence, as above  3675 - 80, 5% yellow fluoresence, as above
			Gas: Mud 3540 - 72, 10 Hycalog units maximum 3572 - 78, 4 Hycalog units maximum 3576 - 3610, 20 Hycalog units maximum 3610 - 80, 8 Hycalog units maximum Cuttings 3540 - 90, 0 3590 - 96, 4 Hycalog units maximum 3576 - 3606, 6 Hycalog units maximum 3606 - 80. 4 Hycalog units maximum
3 <b>6</b> 80	85	100	Shale, light brown, very calcareous, mushy, soft, with sand grains.
3685	90	50	Shale, light brown, very calcareous, mushy, silty
3690	95.	50 80	Siltstone, brown, calcareous, argillaceous, soft  Shale, as above

as above

20

Exam	wined by	Field Snyder	
FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED
3695 - 3	3700	<b>7</b> 0 -	Shale, as acove
		30	Siltstone, as above
A. 3709	<b>0</b> 5	60	Siltstone, as above
		40	Shale, as above
3705	10	100	Shale, as above
3710	15	70	Shale, as above
And the second		30	Siltstone, as above
3715	÷ 20	60	Shale, as above
		40	Siltstone, as above
3720	25	<b>10</b> 0	Siltstone, as above
3 <b>7</b> 25	30	60	Siltstone, as above
	***	710	Shale, as above
3730	35	70	Siltstone, as above
	* •	20	Shale, as above
		10	Dolomite gray, IIIVFA
<b>3</b> 735	40	60	Siltstone, as above
	<b>)</b>	40	Shale, as above
37LC	. 45	70	Siltstone, brown, calcareous, argillaceous, micaceous, soft.
MARINE TO THE STATE OF THE STAT		30	Shale. light brown, very calcareous, very silty.
3745	50	50	Shale, as above
		50	Siltstone, as above
<b>3</b> 750	55	100	Siltstone, as above
<b>3</b> 755	60	60	Shale, as above
		40	Siltstone, as above
3760	65	70 +	Shale, as above.
		30	Siltstone, as above
3765	70	), <b>7</b> 0	Siltstone, as above
	4. 3.4	30 /	Limestone, white to light gray, IVFA, very sandy

<b>E</b> `	kamined by	Fields Snyder	The state of the s	i Boundary B	ut <b>te</b>
FROM	то	%	SHOWS UNDERLINED SAMPLES	LAGGED	
3770	දි0 🛴	100	lam stone, as above.		
3780	35	100	Limestone. as above, becoming very sandy		
3785	9 <b>C</b>	3.00	Linkations, as above, becoming salmon red		
3790	3800	<b>T</b> 00	Limestone, as above, white to light gray,	, <b>"</b>	
3800	25	100	Limestone, as above, less sandy, mottled olive g	reen.	
3825	<b>3</b> 0	100	Limertone as above, motified brown and purple, e	xtremely sa	ndy, IIIMA
3830.	40	100	Limesuche, as above, IVFA-IIIIA.		
3840	45	° 30 °	Linestone, as aleve.		
		2 <b>c</b>	Silvotono, red brown, micaceous, very calcareous	, with lime	stone sodules
3845	50	75	Limestone, as above, with orange chert, less san	dy,	
		25	Siltstone, light brown, calcareous, micaceous.		
3850	55	50	Siltatone, rea to red prown, micaceous, calcaron	s, hard,	
•		30	Limestone, IVA, gray green, sandy (samples poor	<b>)</b> .	
		50	Stale, red, siley calcareout, hard, blocky,		
3855	- 60	60	Misse tone, as acove, with chert.		
		40	Shale, as above,		
<b>3</b> 860	<b>6</b> 5	100	Limestone, as above, with chert.		
3865	10	100	Limestone, as above, very sandy in part, crinoid	frag <b>i</b> nent :	
3870	75	700	Lipectone, as above, very sandy in part, crinoid	fragment, i	nottled brown.
3875	03	60	Linastone, as above		
		40	Schacebac, light gray brown, very calcareous, ve	ry fine.	
3880	85	100	Sandatione, as above, with crinoid and bryozoan(?	) fragments	
3885	90	େ ୍	Sandstone, olive in part		
•		40	Limestone, as above, cherry, gray black		
<b>3</b> 890	95	100	Sandstone, as a ove, very selearecus		
3895	390 <b>0</b>	26	Sandrione, as above		
		20	Lincipado, as above		

Exd	mined by	Barrs Shyder	3900 to _30 10	245		Welf	1 North Bour	idarji Bu	tte
FROM	то		SHOWS UNDER	INED		SAI	MPLES LAGGEO	e de la companya de l	W.
3900	, 05	70	Siltstone,	gray brown	i, red brown	n, micaceon	s, calcareou		
	*	20	Shale, bri	Lck red, mot	ttled green	, calcareor	s, silty, ha	cd.	
		10,	Limestone,	as above	· Parkanananananananananananananananananana				
3905	10	60	Siltstone,	es above.			<b>\$</b>		•
		20	Shale, as	ಶ್ರಾಂ <b>∧€</b> ಇೃ್	•				ingite Series Series
		20	Dolonite,	tan, red, IN	JPA, cherty	<b>.</b>			1. ,
<b>3</b> 910	15	<b>3</b> 00	Limatone,	as above,	in part do	lomitic, sa	ndy.		
3915	<b>2</b> 0	70	Siltstone,	as above.					<u>,</u> 1983.
		<b>2</b> 0	Shale, red	d to red bro	own, salsa	reous, silt	y, blocky, so	oft.	
		10	Limestone,	as above.					
3920	25	100	Siltstone,	es above.				•	
3925	<b>3</b> 0 .	ö <b>5</b>	Siltstone,	as above,	, a.F.		• .		
		15	Limestone,	red; buff,	, IVFA, ver	y silty.			
3930	<b>3</b> 5	65	Limestone	white, IVI	FÀ-IIIIIA, ci	acrty, frag	mental, sand	<b>7</b> •	
		35	Sandstone,		, vory find r to subrou		carecus, poot	rl <b>y-</b> sort	e <b>d</b> ,
393 <b>5</b>	45	100	Limestone,	as above.	,				
				las: Mud:	3735 - 62 3762 -363 3836 - 48 3848 -391 3910 - 45	6, 10 maxi , 14 0, 10 maxi	mum, 8 averag		
				Suttings:	3735 12 3762 386 3860: - 394	d, h noxim	um um, 2 average	Trosler	\$8. 

Note: all units Hycolog

Exa	mined by	Бай. <b>З</b> ny	Well Well Field or Area North Structure Pa	<u> </u>
FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED	
3945	3950	75	Idressone. The is legit area IVPA, well enough with arange des	rty (
		25	Sale desarross, com ally allowers of ficak.	
3950 -	3955	30	" <u>Bilhaure</u> , sediam accy, arry clostence	
		80	Shale, light out, many soft, calcadens	
<b>39</b> 55	3960	15	Saltstone, as whole	
		15	Libertone of one TFA	
# · · ·		jio	Shale, the work to	
3260:	3965	<sup>1</sup> ~60	Siltstoon, as about	
s E		$\frac{1}{k_{\Phi}^{1/2}}$	Levers on the supplication of the first of the second seco	
3959.	59 <b>7</b> 0	COL	Tirestone, as above	
3970	3975	80	<u>Emesting</u> satisfican	
		1.20	<u>Spalo</u> , hight grass van de kun and dans dans de de de de	
3275	14010	100	Sallatine, red brown trailing a range of a group, adoptionate	, ralcareous
hono	4020	100	<u>Sanàs ille, mad bumba, wan like kitaka lili uung kalbanaspa, p</u>	ocrl, sorted
7050	4025	<b>SO</b>	Lucinose, ta to light once 1773	
		<i>;</i> * 20 ;	La <mark>Sualle, mollion ne</mark> degr <sub>i</sub> quija, som de "ta ja linga, la lar <b>reda</b> . La l	·
4025	4035	100	Limestone, stem to light grop, IslIIVI. on sent anyillacente	
4035	Propo	75	Limestade, as doose	
•		25	Shale. Light said a reger of the making of the sign	
PiO) to	4055	100	n in <u>Signaturing</u> in good terress, and hy had a dressed in the ordinary or substitute.	
4055	<b>4060</b>	100	Sandstone. Tradite to sell med. The big rame is seller with a part of the seller with d	ocrigi-
4060	4065	TO	<u>Didentone</u> , norção, nortine co	
4065	4070		No sample	
h070	4075	100	<u>Line thate</u> while a least IVEL, it when exily	
4075	4080	100	Silterale and brown, gradule to amount of the calches	COS S
4030	4085	100	Sandstone, cray telepolitical, reinflue flue, politicamed,	calca <b>reo</b> us :

Examined by Baars 4085 to 4215.
Snyder to

Field or Area North Boundary Butte

FROM	ТО	%	- SHOWS UNDERLINED SAMPLES LAGGE	0
4085	4105	100	Siltstone, gray, recoming macrocous.	
1105	4110	60	Limestone, white to tan, I-IIVFA, mandy, with orange ci	
42.10	4115	100 100	Sandstone, tan, white, fine to very fine, poorly-sorted	i, calcareous.
4215	4120	100	Linestone, white to ten, I HINVE FA, sandy in part. I have been becoming very sandy.	
4120	4125		faresome, whate to can, I-IIIVF-FM, sandy to very sandy,	with chert fragments
		50	Sandstone, tao to gray, ware fine to fine, cell treons.	
4125	4129		Depth correction.	
4130	4135	100	Cavings.	
4135	4240	100	Limestone, light gray to tan, III VO Marry Clauserus st	reaks, sendy in part.
4140	4150	100	Limestone, tan, light red, HIT/IVMA sandy.	
4150	4155	50	Limestone, as above.	
1		למ	Contractive on contract two applications	
		50	Siltstone, tag to brown, mile some, very calearyous.	
ha.55	71700	100	Limestone, white to tan, IVPA, soldy.	
, JL60	h165	<b>9</b> 0	Limestone, as above.	
		10	Anhydrite, with grav chert incomedts.	
4165	41.70	<sub></sub> 80	Limestone, de above.	e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de
		20	Shale, medium gray, slightly esseure as a selt.	
4170	41.75	100	Limestone, as accue, becoming gray a. a mi, with orange	chert fragments.
1,175	F180	75	Limestone, po above.	
		25	Siltetone, gray to brown, micaccous, very collegreous.	
4180	41.85	100	Limestone, medium gray, I/III VFA, candy.	
4185	4190	100	Limestone, gray to gray brown TII Who upplaceous.	
4190	4195	100	Linestone, tan. I-III VFA, sandy.	
41.95	4200	90	Limestone, as jabove.	
			Baltima and alagamatic against a na	
		10	Chert, ten. translucent.	
4200	4205	70	Limestone, as allove.	$\mathcal{N}_{ij} = \mathcal{N}_{ij} + \mathcal{N}_{ij} + \mathcal{N}_{ij}$
		30	Chert, orange, as above.	
4205	4210	90	Limestone, wis te to tan, I-II VEA, sacc.	
		10	Cher as above.	
4210	4215	160	Limestone, as above.	
, <del>a de</del> e				

	Examined	l by _	Baers Snyde	21%		Well Field or Area	North	्रेट्र इ <b>ल्डाब</b> र्ग्य	Butte	
FRO	)M	то	%	SHOWS UNDERL	INED	SA	MPLES	LAGGED		
<b>1</b> 8.45	142	25	700	Line-stone,	usa, IVFA, sendy	in por	٠			
4225	46	230	100	Jane (b. 1986 <b>G</b> EL (* 1814)	and gray III W	M, slughvet le	2 hati	o an jart		
<b>1,</b> 230 -	44	240	100	Marst Rice,	the to ten. IVE	A, bansy 1. pt	r.			
cas;	4:	245	50 °	Limestone	38 Moove			,	<b>.</b>	
•			50	Silts one,	gray, mesy calcur	(60° 3				
1-15	ha	250	100	Siltstone.	grago de Eu <b>rate</b> paro	om, vory calc <b>s</b>	12831 <b>3</b>			
4250°.	47	255 -	75	Limeston	ter, 1/1 1/FA, 50	an <b>d</b> y	,	<del>-</del> <del>-</del>		
			25	Siltston.	as shove					
Marti.		205	140	Limostano	con in jushit ord	o. Hirind,	ry si	10y .		
1,265	- 1 - 1	270	1.00 .	Lamestone.	so aboys, [IIIVFA.					
427C	4.	275	100	Linertone	eray to inguithan	own, TITUS :	10000	1825		
<u>†</u> 27€	71	285	100	himoofices, .	ca. I/Id783A, <b>s</b> o	ing the second of the	igo <u>she</u>	<u>rt</u>		
Eggj	),	300	150	i <mark>limes b</mark> ers	dack pay. MIII	ITA, singt		*,		
L,500	<u>. L.</u>	305°	1.00	Linestone	uark o st III in	., 7600 m To	to intro	i argillo	Jeous	
h5 <b>0</b> 5	4	320	, 30 °	Inmestere,	lart grop, INIVE	A, 85 Dy				
	• • • • • • • • • • • • • • • • • • •		) po	<u> </u>	rk gray, black, od	larros II. vilt	, bes <b>o</b>	engiargil	laceous	
32			100		san, IVII reng	10 (82)				,
4330	14	555	300	Limestone	wanji E 'IliyFA					
4335	1	345	100	Limes cone,	. wto or to <b>n,</b> [1-]	IIIVVA	* +	•	•.	
1345	. 4.	990	TLOO	Triber one	deck trown, arey	IIIVEA, 6709	tiy se	ndy		
1.350	4.	355		Times torks	ban so light wo	m. littin, vi	i tý			
13.5	3,1	360	100	Shale, med	dium to serverey,	sol $oldsymbol{t}_{ij}$ r leading	our mi	th fine li	mestone s	raina
4310	14	370	100	Lineatone,	tan, IIIIAMA		· ·			
1370	4	375	100	Lemostoe.	eta, INM. begin	taly of the				
4 <b>3</b> 15	14	38Š	100	Is restone.	Sary ICHYFA, Sla	nely def		•	÷ .	
1,395	4	390 .	<b>1</b> .(V)	Limestok,	iam I/TIUTA,	117 1. p 1	•			
Liso	4	395	roo	Ideas consecutive Chartest og p	orego, derk a m e.tr	, I/INDFA, ad	idy in	part, with	se lay	

Examined by		Bea s 1:195to 00 Field or		Marth Bound of Soute
FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED
4395	4400	1,00	Limitatore, spellov politic to tan	
4,00	4405	J0	limbourse, comp. TotalVEA, the p	
		20	Chert. 182 y tax	
Just 5	44:10	<b>1</b> 60	Limestone, granteness, III/I/AA, cand, i	n part
្រំព្រះប៉	44.15	- 100	Linestone, white to ton, I, HVFA. mandy i	m particles in the second of t
14.45	4420	100	or <u>Limpstone,</u> , so second with fousil for our	<b>5</b>
450	44,25	j loo	Limestone, ten to become INFA	
1,125	4430	100	Limoutons, heddink grey. IIIVF.MA, essery	on parts -
4.35	44.35	Ty on the	r Limeniane, the stable batta pray, ITIVIL, est	gellaccous in part
	141,140		Language, and the tong I/IIIVA Come	
dario	1.45	1.0	Linestone, our to a grey I/III/A sec	ert fregments
	<u>juli</u> 50	Ţ.ţ.		grands in parts of the parts
		15	e	i non-eslarseous
	41.55	1.60	Line of the same o	
		2.0	Oreit. A roundinge, transituate	
1. <b>4.</b> √ 1.	1,450	<b>1</b> 00	Line sur out	
iji ex	1465	70	Investore as well as	
		30	Stale. hedi in the same gang	
(4)(C)	1,470 .	100	Limestone, in a significant, 1770 of	orn e ce m
42.	14175	100	La regista, esta a app. I/IIIVIA. esan j	
16475	14480	47	Listetele notion gray, TIIVEL	
		- J	Shole. dark gruy, calparcour, out;	
1430 ×	ш485	100	- <u>Limibility</u> , as investigation <b>g send</b> y	*************************************
ر بر	4490	100	Language true III/ gamin de para	
$f_{\mathbf{k}}^{-1}([0,t])$	11195	100	<u> Sieronome</u> un shone, TITYEZ	
\$1 \}2	1,500	įλ	<u>Lin espie</u> , establique	
		50	<u>- Shallo</u> andicar op desta mon <mark>g, wife, sl</mark> eded	malcerood (*)

Exami	ned by	Beers Snyde			Well Field or Area	North Bou	Mary Rutte	
FROM	ТО	%	SHOWS UNDER	INEC	SA	MPLES LAGGED	No. 2	
4500 1	4505	7.00	St. Idestrace	lighter a brown,	roxy ealcoat	Fred \$502)	ng <b>àci</b> )	
Mod (	4510	100	Lines bears	to to white, III/	I <b>Y</b> FA Cocur of			
	4515	ioc	Limostone,	किर्मेश्वर स्थान व्यवस्थात्त्री । विकास	Transition of the second			
4015	1,520	100	Lagston.	ton, I/III/A, with	cont. tar c	n onenge		
leng (	4535	100	Inmestone.	as above, becoming	g sandy in par	t. Tard pa <mark>eນຜູ</mark>	oblitic ;	
4535	4540	ŝċ	Linestone,	ac sbove				
		20	Sache, cal	<b>ceremus, s</b> ilomotilo e	enhyor, pin			
4510	4545	100	Lagratone,	can, 1/THVFA cer	nor to post, w	nith snoky che	ert fragment	S
451,5	4550		No sample			**		**
 16559	4555	75	Limestone,	tan, IVeA, Aritic	e with calcits	j veimlots end	raliky cher	<u>.</u>
		25	. 11 <u>Sec 16</u> , 11 11 .	ha to made a gray,	na naataan	o, sandy îr (	A MAN	
155 1155	4560	100	Linestons,	White to tan, lyll fragraces		stituic in per	t, brown <u>ch</u>	ert *
4()-60°	4505	90	Line tone.	jas abovo, elondes	t <u>t</u>			
		1.3	Sheet All	$\sigma^{\prime} \circ \mathbf{v} \bullet_{i}^{i} = \sigma^{\prime\prime} \circ \mu^{i} \circ \mathbf{v}_{i} \circ \cdots \circ \mathbf{v}^{i}$	ilografias.			
1,955	4570	100	Timeson.	Lote, IVE, site	emell, surar			
h570	4575	1.0	Limentone,	printe to more, IA	IVVA, nebny bi	£ gate∯ •		
		. 30	Limesto .2.	Webe, IVI				
		. 20	Shele, med	hun crey. Lightly	eclasrecat, si	ilty .	**	
1075	4580	75	Limeston,	es aborra		ě		
		, p#,	Sheless as	ahomo il distributo di sila di			<b>,</b> :	
4500 - 1	4585	75	Shale; ay	acres, very became	edi. *			4.2
		25	Limutone,	৯৯ স্টেল্ড				li este de • x de l
7,585	4595	100	Limestale,	<b>6</b> .5 (\$\frac{1}{2}\text{to}\text{V}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\$\f	y	· •		
4595	1:600	<b>60</b>	Limestone	As above				
		ijΟ	Shale, so	abore recessor ent	rabelt wider	មួយ <b>រាជា ជ័</b> ស្រី		

Examined by Fields ry Butte Equad: FROM % TO SHOWS UNDERLINED SAMPLES LAGGED Gag -Mod I/A (Continued) 1532 - 40. 15/10: Maximum 45.0. 68, 10/10/ Pagints 4558-Sć. Maximum Maximum 4586- 96. Mr/10: Maximum 11596-LEOG. TAME Meximum 4500 1,603 No samples 4603 4638 Core # 1 100018 1.539 Core # . 4639 4,540 No samples 4640 . 4646 Sore # 3 1,660 94666 Core # 4 · 1660 1677 Ocre # 5 1671 .4675 100 Limertone. omedical gray to tao, ITEA, solorthy doing the with cheri 4075 4580 100 Lime stone, IF & OVA 1,680 4635 100 Limeston. as above, wath abundant grant that commune, with pyrate inclusion. 4585 4690 1.00 Limestone, as abo with very abander to humb.  $\mu \phi = 0$ 1695 100 Limestone. as above, becoming light that less delomited, less thert. 1698 4695 No samples, 1,598 1.70 Core #6 1,724 1,725 80 Limestone, light goes tan. IVEA to I/III VF-MA 10 <u>Limestone</u>, white toolight gray, II VWA. The Spotty plue yellow fluorescence gelion out finerescence. 4725 e as Podve i Bught grejmsane 1:730 30 Limestone, 20 Limestone. light gray-white, II VFA as above. 》起7.30 4735 100 Limestone, gray to tan, I-III F-LA (LUBy + JACTO (possibly vurgy), fracture mostly open. 151 smilte but

medium reliew out fluorescence.

The state of the s	ers 16000 congression 10	Field or AcedBoundary But	te y
FROM TO %	SHOWS UNDERLINED	SAMPLES LAGGED	
<b>46</b> 00	Continued		
	Ges (Eyçalog Units)		
	Mid Total/Methane	Creve ingr T/M	
	3947 60, 14/12	397-1012, 070	94.
	3960-4016,	4017 50, 4,2: Maximur	m 🛫
	4016- 38, 6,2,	4651- 52, £/8: <b>M</b> eximu	m ·
	4038- 46, 10	2/2 19	
	1010 12, 13	· 1656-111.75	
	4048-148, 14/2	μh 2 - <b>L</b> o, 2/2	
	4045- 50, 20 16	Line 25-2, 20/05	
	4050 50, 30, 30,8	1572- 91. 4A. Maximu	<b>M</b>
	14/4 52 - 56. 4/4 53 A	6,6	
	4056- 66, 5/6	1,96-4600,000,4/4/4	
	16664 76, 12/10		3
		par:	
	4080- 84, * Julia		
	4080-4174. 3 6/6. Mixima	<b>m</b>	Land.
	14171,-11218, 12/6: Marrimu		
	1218 - 90. 34 6/4: Maximu	m.	Superior superior
	4790-4/120, 11/10: Maxin	um .	
	4410- 16, 1 16/8 Maxim	CASE AND A STATE OF THE STATE O	
	4 1416- 24, 201 s Mezin	ian e e e e e e e e e e e e e e e e e e e	
	44214 30, 25 Lip Hoxin		i is.
	/ (1) (1) (1) (2) (2) (3) (10) (3:1) <b>Maxim</b>		
And the second s	1462-75. 8,6- Mexim		

,1472-453h,

WEEK ENDING February 10 CORE FROM - 4603

# CORE RECORD

AREA ON FIELD North Boundary

CORES EXAMINED BY Baars, Snyder

	-	7	-	LEASE AN	D WELL	NO	
No.**	FROM. ₹1603	4638	RECOV. ERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	aymbor.	OBSURVED DIP	CORE INDICATIONS OIL-GAS
	4603	4604	1.	Shale, medium gray, slightly calcareous, with calcite crystals, very dense, hard, massive	•		CORE OR DITCI
	4604	4606	21	Shale, dark gray, slightly calcareous, thinly laminated, fossiliferous		, , , , , , , , , , , , , , , , , , , ,	
	4606	460,9	31	Snale, dark gray to black faintly calcareous, slightly fossiliferous, dense, hard		ing v	Very pal
, c	4609	4610	1.1	Shale dark gray to black slightly calcareous, dense, hard, in horizontal bedding		00	yellow fluor escende pat y over fresc
	4610	4617	71	Shale, as above recoming moderately calcareous with abundant fossils		- ^ ^+	surface. We vellow cut fluorescence
	4617	1620	• بر	bhate, as above, becoming very carbonaceous		1	
	4620	4621	*	Shale, black, very calcareous, very fossiliferous, with abundant calcute crystals			
	4621	4022	(%) R	Limestone, brown IVFA, argile errs, round crystalline anhydrite in vertical joints, also he joints		Co	
	11955	1,623	ا ا	Shale, black extremely parhonaceous, slightly calcareous			
	4623	4626	: أو	Limestone, as above at interval 4621-22	.**		
	4626	4627	. <u>T</u> .	Landes tone, I-IIIVFA-MA, argillaceous, pseudo-oblitic			
	¥627	4630	ا ر	Shale, black, dense hard, non calcareous, extremely carbonaceous			
	4630	4631	11	Snale, as above, with limestone modules			
	4632	4632 4633 4634	, î: * î:	Shale, dark gray to black, non-calcareous appears to be dolomitic  Shale, as above very delomitic  Dolomite, dark gray, IIIVF-FA, argillaceous			

WEEK ENDING February 11, 1955

CORE FROM 4634 TO 4655.9

# **CORE RECORD**

AREA OR FIELD North Boundary Butte-COMPANY Shell Oil Company

CORES EXAMINED BY Buars, Snyder

LEASE AND WELL NO

	CORE	S EXAMI	NED BY	LEASE ANI	MELL!	NO	<u> </u>
NO.	FROM	70	RECOV- ERED	FORMATIONAL, STRUCTURAL AND PROBABLE FRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	ORSERVED DIP	CORE INDICATIONS OIL-GAS CORE ON DITCH
	<del> </del>	<del></del> .	·	(Continued)			CORE OR DITER
1	4634	4635	1,	Dolomite, as above, becoming calcareous	¥ .		- W
.5s	4635	4636	1'	Limestone. I/IIIVFA, brown. slightly fossiliferous, slightly argillaceous			Medium yello fluorescence
	4636	4638	21	Limestone, brown, IVFA, in part stylolitic and carbonaceous, also cherty			15% fresh
	1 6 2 2		~~				face, med
2	4638	4639	1921				cut fluores:
*	4638	45385	్క	Limestone, tan, IVFA, sandy, with recrystalized calcite in tight 45° fracture			None
- 3	4640	46/16	1				
- <del></del>	14040	40/10					
	F9F0	16L3		Limestone light gray to tan. TVFA, slightly fossilliterous, with occasional calcute rhombs, slightly pyritic occasionally recemented at fracture.	-	°	
	h643	4643.5	0 <b>,</b> 51	Chart, dark brown grag, opasse			
	4643.5	uolla	0.5	Limestone, tan, IVPA, iossilifercus, yrite			
				Occasional from surface and sparce (2.8%) dull prowary llow flactescence brownish yellow out fluorescence, no out. I have respect to tracture at house, the city syed very slight oil staining. Also out stains on slickeneide at house, the level of respond on fresh particle at total 43.			
				with a total of the control of the c			
4	4646	4660	34.				
				Limestone, tan gray, IVFA, slightly to very dolomitic, occasional crinoid stem			*,
	4651.7	4652.5	0.8	Chert. dark brown gray, opaque, nodular			
i i	4652.5	465 <b>5.6</b>	3.1	Limestone, as above	e e		
4, 24	4655.6	1655.9	0.3	Chert, as above			

WEEK ENDING FEBRUARY 12, 1955 CORE FROM 1655.9 **\*o** 1,702

CORE RECORD

AREA OR FIELD N orth Boundary Bu COMPANY Shell Gil Company

LEASE AND WELL NO.

CORES EXAMINED BY Baars & Snyder INDICATIONS RECOV-FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE **OB**SCRYED FROM TO SYMBOL DIL-GAS CORE OR DING (Continued) 4655.94659.7 3.8 Limestone, as above 4659.74660 0.3 Chert, as above Rare spotty brownish yellow to yellow fluorescence, yellow cut fluores cence, no cut on occasional fresh surfaces and tight rehealed fractures **4660** 4671 11' L660 **L**651 7.5 Limestone, tan to gray, IVFA slightly dolomitic with tight dolomite filled 450 fractures. Ground mass chert with pyrite grains 1.0**6**0-71° **0**70 4663 4661 28 Limestone, as above, with chert nodules, dark gray brown, opaque (smoky) 0.81 1663 1663.8 nodular, dark gray brown (smoky), fractured but tight 1,663:81,666.2 21 Linestonn, as above with vertical stylolites, very hard, decise, sperty 46**66.**24667 0.8 limestone, as above, with very abundant opert nocules b667 4668.6 1.5 limestone. tan gray IVFA, dense to hard with occasional fossiliferous fragments 1.668.61670.8 2.2 Limestone. as above but with chert nods 4670.84671 Chert, dark gray, very dense, fractured, secondary calcite-filled 0.21 No oil shows 26 1698 L72h Limestone 4698 L700 21 Limestone. light to medium gray, IM-LA+50 Con Oil staining and minor Bleeding and amount bleeding, light brown oil, on fracture surfaces mam poreal Purs and It 4700 4702 Limes bone as above, IVF-MA, stylolitic, fossiliferous, carbonaceous in times. lis part. with calcite filled 450 fractures

SYNROLS C.CLAT OR SHALE ISANE GIAN OR SHALE WITH SAND STREAMS ISAND S. T. CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAMS (SAND 60-90%) SAND (SAND 25-60%).

	4-8	8-50

WEEK ENDING February 11, 1955

CORE FROM 1702 TO 1/24 CORE RECORD

AREA OR FIELD North Boundary Butte

COMPANY Shall Oil

CORES EXAMINED BY Snyder LEASE AND WELL NO. NOICATIONS CORE OH DITC (Continued) Limestone, as above, IF-MA+80 Cag. Vertical - 250 oil filled fractures, also porous section bleeding oil as above L702 1703 to medium bright velle fluorescence 10703 1071E as above. Toward, with carbonize ous streams and ways, stylolisms better asserts additional fractures. Some open, focsiliferous limes ... ne, and cut f escence. ty, to unif 14/14 17 3.3 Limertone. Po thove IVER spot , with India 2 3) + 20 0 + 40 Bleening . 7 there are the brown oil from oc a and from tome fractures 4714.91774.51 on there IVE More I to use to believe respinse fractions carbon San Military to the same of th arenus! foasulifarous h7:6,5472) | Lingstone | Lank be mading gray, IVTA + 20 UVIL + 10 Oca + 10 perous sections oil stained and bleeding of slage ty

			DITCH SAW	PLES		
Examined by	Snyder Fields	4735 <sub>6</sub> 4820		Field or Area	North Boundary	<b>W</b> ife
FROM TO	%	SHOWS UNDERLINED		SA	MPLES LAGGED	
4735 4750	100		gray, white, fracturing, yellow cut f	10-155 uniform	HIF LA + 10 B <sub>5</sub> 1 blue yellow fit	with worescence,
4750 0.7 <b>65</b>	100	Limestone, Lakt			Bs, TVFA and FI	
4765 4770	60	Limestone, as aco	ve.			
	,40	Limestone, olack	to dark gray	IVEA, very and	gillaceous, 5% s	hows as above.
<b>4.</b> 4770 4775	50	limestane, es and	() N 79•		•	
	50	Shale, dark gray	to blook, fus	ssile, slightly	calcareous.	
4, 4775 4780	60	Shale, astabove-		*	**************************************	
A Section 1	40	Limestone, as abo	Ve · · · · ·			
4780 4785	75	Shale, as above.	•			
	25	Limestone, as abo	ve.			
11785 4790	' 40	Limestone, dark g	rey to light	tan, I-III Vi		
	<b>3</b> 0	Limestone, IVFA,	as above.			
	<b>3</b> 0	Shale, as above.				
47.30 47.95	90	Limestone, dark g			VF-FA + trace B <sub>t</sub>	r, pseudooliti
- 1 - 第一 - 1			t. with cheri		3.0	
	16	Shale, as above.	•			
4 4795 4800	95	Limestone, as abo	ve.	A STATE OF THE STA		
	* , <b>5</b>	Shule, as above.		্ৰ : পুৰু		
4800 4805	100	Limestone, as about 0:1 shows 4782 bright yellow	-4305, trace	to 10% specify		<u>50</u> * * }
		conce.	The contract of the second second second second second second second second second second second second second		FE.	
4805 4810	1.00	Limestone, as also trace	ve. becoming wil showe as		orown and dark	brown gray,
4810. 4815	100	Linestone, as abo		JF-FA + trace I	Bl.3. occasional	nedium quantz
4815 4820	100	Limestone, as abo	ve, mo <b>etlý</b> bi	rown, III/II VI	-FA + trace B	-li sandy in
				shows as above	with spotty med	1 um
		brown orl star	ning.			

Examined	by	Murray 1820 to	<u>4875</u>
		10	-

Field or Area North Boundary Butte

	FROM	ТО	%	SHOWS UNDERLINED	SAMPLES	LÄGGED	
	4820	4825	100	Limestone, as abovo. I-li	IVF-FA and III/FI VF-FA	+ trace B <sub>tr-1</sub>	
	4825	4840	1.00	Limestage, as above, inch limestage, wit	easing percentage dark l h dark brown to black o	brown gray to beet, fussilife	prown black
	4640	4845	80	Limestone, as above.	•		
			20	Siltstone, light gray to	gray green, very collean	eous.	
	4845	4850	65	Limestone, as a ove, mott	cled black gray to white	, 1- <b>п-пі v</b> ғ-і	PA.
	•		35	Siltatone, as acoma.			
				0:1 врсиз (1201-4350)	traen skowe es above.		
	4650	4635	50	Limestone, as about, rost	lv light tan, 20% pele crm, pale vellow cut fi	yellow orange :	fluorescence
			50	Siltstone, at alpre.			
	lebbů Lebbů	4660	. 80	Limestone, light erroy, to	an chrown, 1 III VF-FA + as above but medium yel	trace By g, 3	andy in part,
,			<b>2</b> 0	Siltstone, as above.	· ×		
	41.60	4865	60	Limestons, as above, 1-11	II /F-FA pseud olitai, <u>5</u>	g shows as abo	<b>40.</b> 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	7		20	Siltstone, as move.			
	h655	4870	80	Limestone, as these, f-II  trace bright;	II 75-FA + trice F. 5, I vellow as in 7500 1820.	ች anows as abo	ve, also
			20	Siltstons, as whose,			<b>-7</b>
	4670	4875	60	Linestone, as prove I-II	II VF-FA, 16 slows as ci	07 <b>e.</b>	
	. •		40	Saltstrie, as shows.			
	4875	4880	<b>ပ</b> ၇	Lime rolle, 12 12016. I-II secwa as above	II VF-YV - prome Squge m e.	otiled green a	n part, <u>1%</u>
	<u>.</u> .		۲o .	Silvatone, as about.			A second of the
	£880	4885	70.	Lamestone. as ebove, 1-1	II VF-FA concerning silts		
	5		<b>30</b>	Siltstone, As Abaye.			
	F882	1:890	65	Liment me, ca loove, sil	ty in part		
			30	Siltatone, no above.			
,	L.890	4695	60	Siltatione, as parve.		en en en en en en en en en en en en en e	al al
			SO	Limectone, as above.			

#### DITCH PENPLE

Exam	laged the	Fields Murray		Tield	or Area Total	. Havetany Autie	
FROM	70	%	SHOWS UNDERLINED		SAMPLES	Parceto /	
1.895	14900	60	Siltstone, as above.				
i i		20	Limestone, as above, v	ery silty, dar	k gray brown.		
\$ 4900	4905	90	Sintstone, as above.				
	**************************************	. 10	limestone, as above.				
			- 011 shows 48801-491	0., trace as 1	n 48751-48891		
11205	4920	° <b>1</b> 00	Siltstone, as above.				
			Carrier Carrie	Summary ) 1600 - 4910			
			Mud	, <b>4000</b> -4910	Cut th	ng <b>a</b>	
			1,600-1,700 0-6/2 1,700-1,730 1,70-11,74		1,600 1,721 1,721 1,730	1/1-10/10	
	1.12		14730-4770 10/2-24/6 1770-4784 5/2-12/4		11730-1740	10/10-64/60 (Max. @ 47381)	
			1784-1788 60/58-100/	90	4740,-1.750 3 1.750 43.66	10/36 <b>-62/56</b> 20/36-49/38	
		No.	1834-4836 178/176			(Max. 617501)	***
	). 		1836-4862 26/20-64/6	54 25	14760-14770 14770-14800 -	8/lp=20/16 11/2-11/6	
13		*	16/14-23/2 4,884-4910 26/22-43/3		4800年4612。	2/0-10/6	
A. (4)		Section 1	(Max. 3)		. 4812-4822	30/28-46/4	1
					4831-4910	12/10-28/24 6/2-20/16	
		***		***	de: c.,d21.	(War & 490h;)	

	tio	nined by	Fig.ds	1910 to 4975  Well Morth Boundary Butte
	FROM	10	.%	SHOWS UNDERLINED. SAMPLES LAGGED
	4910	4915	75	Siltstone, May to gray brown, delcarecus, argillaceous,
			25	Shale, medium gray to dark gray, calcareous, fossiliferous.
	4915	4920	. 60	Siltstone, as above with fusuinids.
•			<b>. 2</b> 0	Shale, as above.
•			20	Chert, blue, opaquo.
	4920	1,925	60	Siltstone, as above.
	, de		20	Chert, as above.
*	4925	4930	75	Siltstone, as alove.
			20	Limestone, brown, IVFA, very argillaceous.
** * ***		9	5	Chert, as above.
*1	4930	4935	80	Siltstone, as above with fusulinids.
			20	Limestone, as above.
**	4935.	4940	40	Shale, brown to gray brown, silt, calcareous.
. \$	, ,		40	Shele, light gray brown, soft, fossiliferous.
	en en en en en en en en en en en en en e		50	Siltstone, as above.
	11940	4945	,80	Shale, mottled light gray to gray tan, silty, calcarebus.
			50	Siltstone, as above.
•	4945	1.955	100	Shale, as above very fossiliferous, with anhydrite.
	4955	4960	75	Siltstone, gray to brown and gray green, very calcareous, argillaceous with anhydrite.
		A.	25	Shale, as first above.
	4960	4965	80	Siltstone, as above.
			50	Limestone, dark brown, IVFA, argillaceous and silty.
	4965	4970	70/	Siltstone, as above.
			<b>3</b> 0 ,	Limestone, as above, dolomitic; with pyrite.
	4970	4975	45	Siltstone, as above.
			25	Shale, brown gray green, fossiliferous, calcareous.
			20	Shale, light red, soft.
			10 .	Limestone, light gray, IVFA with fusulinids.
		4		

Graniged M. B. S. S.	\$ 5025
	North Source Acts
	SAMPLES L'ABBEO
\$ 16775 F. 3 V6980 SD 33	Silustone, as abeve.
	Since red, as aboute.
5	Manustone as above becoming silty
1980 1985 60	Siltstone, as above.
46	tracstone as above, wary silty, with anhydrite.
* 178 1.990 (SI *	311 desouse, advantore,
<b>*</b> 50	Mestone, as Mores
199 <b>6</b> 1995; 10,	Shale, brown gray, foestillferous, very callcarsous.
. 25	Filtstone A as above.
	Shale, as above.
****	Limestone, light grav to light brown, IVA, with fusulimids.
995 200 40	Shale, light red, soft calcareous with annudrice. Shale, gray to gray graen, calcareous,
	Miltetone, gray to gray bremi, calcareous, argilladeous.
7 5000 5005 50 20.	Shale, light red, as above. Chale, gray to green, as above.
70	Siltstone, as above.
	Limestone, as above.
A STATE OF THE PARTY OF THE PAR	Shale, light red, as above.
	Shale, gray, as above.
14	Dollomite, Man, IVFA.
	Siltetone, 25.cbove.
	Shale, lightared, as above.
	Snale, gray, as sheve.
201	Dolomite, tan, I/III VF.RA.
# 50153 5020 · . 70 *	Dolomite, as above.
E MALEN A 20	Shile as first above.
10	Shele, gray, as shove
5020 5025 00.	Dolomite, as above, silty. Shale, gray and analygrite.
4-20	Shale fight red as above.
W. F. West Const. St.	

Examined as Riolas Sninder	Well Tield or Area	For the Boundary	litte
regue to 8	SHOWS UNDERLINED SAN	PLES LAGGED	
# 5025 S030 LO	Dolomite, tas, I-III VFA, silty.		
30	Anhydrite, white, granular.		
20	Shale, light red, calcareous, soft.		
10	Siltatone gray brown, argillaceous, calcareo	us:	
50.10 50315 50	Shele, mottled red; brown, levender, purple,	calcareous with	shydrites
25	Anhydrite as above with metallic veins:		
1125	Dolomite, as above.		
<b>5035</b> 5040 50	Anhydrite, as above.		
30	Shale, as above.		v
20	Siltstone, gray brown, calcareous with anhydr	ite.	
sotio solis lio	Stitetone, as above.		
20	Shale, as above.		
÷ 20	Anhydrite, as above.		
20	Dolonite, tan, IVFA, silty.		
- 150k5 7, 5050 kg	Dimestone, brown, IVFA, silty,		
30	Silts ne, ray to brown, with anhadrite.		
30	Shale, as above.		
5050 5055 60	Shale, as above with anhydrite.		
20	Linestone, as thove.		
20	Dolomite, IVPA; brown, silty.		
5055 5060 70	Shale, as above, with anhydrite, fossiliferou	s.	
30	Dolomite, as above:		
5060 + 50 <b>85</b> 50	Shale, as above, sandv.		
30	Sandstone, medium orange brown, micaceous, fi	ne-grained, round	to sub-round
20	Polom te, as above.	And Andrew	
<b>5065 5048</b> 60	Stale, as above, very silty.		
20	Ampydrite, white, granular.		
20	Linestone, or wn, IVFA.		
		i de la companya de	

	E	irNo x	ned by	Field Savie		е
	FROM	1	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED	
	5070	7	50 <b>7,5</b>	50.°	Limestone, grav, IVFA, fossiliferous.	· )-
				50	Sixtstone, brown, caterreous, argillaccous, will anhydrite.	•
., 1	5075		5080	50	Siltertone, as bove.	٠.
		Z		30	Limostone, as algove, dolomitic.	
	13. 4	• • • • • • • • • • • • • • • • • • • •		20	Snale, gray green, calcangus.	
	5080	,	5085	40	Shale, motaled green, brown, purple.	
		* *		30	Sintstone, as arove,	
	*	4		30	Limestone, as above, deloratio, silty.	
. ¥	5085		<b>50</b> 90	700	Limentone, as above, dolomitic, siltv.	
	5090		5095	40	Limestone, as abeve, dolomitic, silty:	
	· 4	*,-		<b>3</b> 0	Dolomite, brown, IVFA, fessiliferous.	- ,
				<b>3</b> 0	Silistone, as above.	
	5095		5100	60	Delomite, as above.	4%
				Į10	Limestone, as above.	
7.	5100	•	5105	50	Dolomito, es above.	
s (3)	•	. 1	•	50	Limentone. ar glove.	
			4		Gas Summary (Cotary Engineering Units, Total/Methane)	
					4910-4936 Mud 20/2-60/6 Maximum 3 4910°, DST #5, 4787-4910. 4936-4952 Mud 18/2 Haximum 4952-1960 Mud 20/6 Maximum 4960-4972 Mud: 10/6 Haximum 4972-5036 Mud: 16/6 Maximum 5088-405 Mud: 20/2 Maximum	

1910-4956 Cuttings: 6/2-20/6 Meximum @ 4910, DST 35, as above. 4936-5060 Cuttings 6-12/2-4 Macrimum @ 4964 5060-5105 Cuttings: 4-8/2

Exam	ined by	Fields Snyder	51.05 % 5240	Field or Area North Boundary Butte
FROM	то	%	SHOWS UNDERLINED	SAMPLES LAGGED
5105	5110	60	Dolomite, brown, I/III	F-FA, silty.
		<b>L</b> O	Limestone, light tan. I'	IFA.
5110	<b>5115</b>	100		e, as above, 2-5% medium vellow fluorescence, pale corescence, no cut.
5115	5120	<b>1</b> 00 .	Dolomite, tan, tan gray	to whate; as above, 20% shows as above.
5120	:5125	100	Dollomite, as above, 55	shows as above.
· 5125	51:0	1,00	Dolomite, as above, I/I	II VF. FA 2 ZIII F B5, 2% shows as above.
<b>513</b> 0	5135	100	Dolomita, as above. I/I	T VF.FA, 50 shows, as above.
5135	5145	100	Dolomite, as atove, 25	snows as above.
5145	<i>5</i> 165	100	Dolomite, as above, tra	ce shows, as a one.
5 <b>1</b> 65	57.70	100	Dolomite, as above, 15	shows, as alove, also slight oil staining.
3170	5195	100	Dolomite, as above, 5-1	18. snows as arova.
5195	5200	100	Dolomite, as above, tra	ce shows, as above.
J200	5205	03	Dolomate, as above with	anhydrite.
	1 (see	<b>2</b> 0	Limestone, white, IIA +	tr. Bg. Trace shows as above.
N <b>52</b> 05	527.0	70	Dolomite, as above with	chert.
		30	Limestone, as above, no yellow cut f	B. 5% bright yellow luorescence, pele, to medium uorescence, no cut.
£5210	523.5	60 ,	Dolomite, as above.	
		40	Linestone, as above, 10	shows as above.
5215	5220	50	Dolorute, as above.	
*		50	Limestone, as above, 20	shows, as above.
<b>522</b> C	5 <b>22</b> 5	100	Limestone, white, IIA,	HITTP-MA, OO, shows, as above.
÷ <b>52</b> 25	5230	00	Dolomite, tan, I/IIT VY	-MA, 60% shows as above.
		40	Limestone, as above.	
5230	<b>5235</b>	50	Dolomite, as above.	
		<b>.5</b> 0	Limestone, as above, 40	shows, as acove.
523 <b>5</b>	5240	70	Limestone, as above.	
		30	Dolomate, as above, 30,3	shows, as above.
		<del></del>		

Exam	ined by _	7	5240 6 345	Field or	Well North	Boundary Butthe	
FŘOM	то	%	SHOWS UNDERLINED	<i>3</i>		406E 0	
<del></del>		<del>- 1</del>					
5240	5245	, 80	bolomite, as above.				
		20.	Limestone, as above, 30% shows :	as acove			
521,5	5250	50 🖫	Dolomite, as above, very sixty.				, New Y
		50	Limestone, as above, 30% shows.	as above			
5250	5255	. 70°	Dolomite tan to light gray; I/	III-VFA	· 2B <sub>c</sub> + tr.	Che with anhydi	ite.
		30	Limestone, as above with IIIF-M	•	7.4		
<b>525</b> 5	5260	50	Dolomite, as above.				
		50	Linestone, as above with trace	B 10%.	shovs, as ab	оте.	
5 <b>2</b> 60	5265	.60	Dolomites as above.				
	4.	40	Limestone, as above IVFA, trece	fluores	ence as abo	ve, no out have	gescence.
	44 44		Gas Summary (Rotary Engir	ے۔ neering آ	nits, Total	/Methane)	
			Mud 5105-513E 8-12/2-4			tingak	
			5138-5160 6-8/2		5186-51 <b>96</b>	L/2 5	**
			5160-5166 8-12/2 **** 5166-5186 16-24/10-4		-5 <b>196-</b> 5214 -4 <b>5214-</b> 5220	6-2/0 <b>-2</b> 4-3 20-30/8	
	int.	(t, j)	5186-5196 16-20/6-8		5 <b>220-</b> 52 <b>3</b> 0	40-56/020	1.0
			5196-5204 18-20/6-2 5201-5228 16-36, 34 ave		5256-5264	18-32, 25 ave.	
			5228-5218 20-21/10-12				
			524 <b>8-5265</b> 8-18/4-8	्र <sub>ा सम्</sub> क्राक्ष्य			* * * * * * * * * * * * * * * * * * * *

#### Arth select

En	mined M	Melds	5265, 1920			(1)		
	***	Ang a	to the second			-		
FROM	ستنبيذ الألف		SHOWS UNDERLINED			* BANGER LAS		
5265	-5075	y 10	Limestone, light	ar grap, 4	PR VFL, 62	-		
riche, or e		30	Dolomite, tan gr	W. T/DL	; cherty, s	ilw LW m		
\$275	5280	60.	Limedione, as ab	We.				- 74
		60	Silistope, mediu		count tery	calcare	<b>T</b>	
5 <b>280</b>	<b>52</b> 85	70	Siltstone as ab		10			
		20	Limes one: de ab	THE STATE OF THE STATE OF			Ar Cib	
PACOP.				·				
5285	5290		Siltstone, as abo	The same of the				47.4
		20	Limestone, as ab					
		20 &	Shale, medium g	ay to dark gr	ay, fossill	lerday very c	dicatelogo.	**
· 5290	5295	<b>.</b> 60	Limestone, as ab	ove.				
7.5		" lia	Silastone, as abo	ove.				4
5295	5300	75	Limestone, as ab	We T				
		<b>2</b> 5	Siltstone, as pho	7 <b>6.</b>				
5300	\$ 5320	<b>.</b>	Limestone, as acc	inge will such	drite and d	secure tell th		
<b>5</b> 320	<b>5</b> 330	70	Limestone, light	brein, T-II	VF-FA, and	raretic two	Service Service	
		30	Shale, red, calc					144
5320	5335,		Limestone, light		,			
						4 25		
		20	Limestone, light					
		20.	Shale, ochre, gr	A. D. W.				
5 <b>33</b> 5	5340	80	Limestone, Liet		Andrews State of the State of t			•
		20	Shale, green with					
<b>5340</b>	534 <b>5</b>	100	Limestone, light	brown, 1774, e chart trags	with crysta	li tee animiri	e inclusions	4
to.è	<b>46375</b>	100	Limestone, tan t		in the last of the		ite and	***
J#17;								
32(2	5380	60	Limestone, asuno		***			
		20	Male, medita					
5380	5385	* 70	Limestone, as ab	ove with race	ilight yell	owicing to Diggs	999	
李章·李章		30	Shale, gray, red					h 13

*										
					9177N-SA44					
S 44 Exc	ımin <b>ağı by</b>	Knight Sander	5385 W	530	<b>.</b>	Field Dan				
From	7 70	187	sulows und	REINED A		· /•	SAMPLES L			
5385	\$5%0	60	Limestone,			***	ente (jos)			
		16"	Shale, gra	y, red pi	parale, sol	ft, mushy.				
53.90	53 <b>95</b> **	-,100 e	Linestone,	tan, ILLYR	And the	tall foreme	and delig			
* 53 <b>9</b> 5	×51,000	<b>, 1</b> 00	Limestone,	tan, IWA.	sandy.				20	
		dr.	Limestone,	tan, INN.	5-10% mocut	drûm yello	n fluorese	ences per		
	SLOS	. 100	Limestone,	ted to while 5-20% abo	tey 1/111	man aran	orangerthe	rt fragme		
<b>5</b> 05	5410	100	Dolomite,	shite, III	LA'+ pr.	4 × 15-108	947F-94	1869.**		
riffe.	2150	<b>-20</b> 0	Sindstone,	fine, sub-	rounded, w	ell sorted	e algaritor	s, for sr	aine shuk	1
20	5425	/ <b>189</b> 0	Sandstone,	white to 1	<b>4</b>	yer fine	arellar t	o sab-arom	aded sign	*0
		. 20	Shale, pur	pla, red ar					100	
4.85	5.90	. 80	Sandstone,	as above;	2% shore	es above.		11		X
		. 26	Shale, sa	above.						
* 5l,30	51.05	. 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	as above,	The same of	s egoke.				
		36	Per	bra Leafter						2 0
<b>.513</b> 5	544.0	4,270	VIOLET CO	nedium bro		2% shows 4	s abave			
		30	300	, green en	The state of the s					
5W10	5045 <sub>2</sub>	*100		wn, gilty, ple, red, l		The second state of the second	No. of the second	1		
51.55	5168	100		ple, <b>red</b> , si		100	30			
- 13.60 T	5465			drawn, [L	The state of					
		<b>3</b> 0		wird.beg. co	\$ 19 m					1
		30	Shale, as	7.7						**
5465	<b>#5</b> 500	100	Limestone,		en, itt ee	with abuse	dan't goods			
<b>5</b> 500	9390	<b>70</b>	Limestone,		W			green as in	i Majortopia	
	1 1/4	10"	Chert, 1:s	ht criving						

Enon	nined by MARINE	5 <b>530.0 5650</b>	Tiers of Arts Of S	
FROM	10, , %	SHOWS UNDERLINED		
5530	5535 80	Limestône, al Abova 📯 👪		
	20 +	Chert, as above.		
	10	Limestone, Might brown, 111	PA + tr. C30, collide.	
	<b>6510</b> - 300	Limestone, tan, 111 W-FA.		
*\55\0	.5550 · 50	Lines one, as above.		
	50	Limestone, pale gray to mil		
		MOTE: Above samples contain	spindent Kray Traces or	
		Mud: 5265 - 556 16-90 to		
<b>555</b> 0.	5535 200	Limestone, white so tan, IV		
<b>3</b> 375	5 60 200	Limestone that Ao tan, I-2		
5589	<b>585</b> 60	Innestone, white to tan, I-I		
	12.40	Shale, purple, Take, few fr	agments white cherters	
5585	5590 100	Shale, as above, very poor	ampha.	
5590	<b>5698</b> 60	Shale, green and purpley sof	t, flaky.	
	W W	Limestone, as above.		
\$595	<b>5600</b> 2.7 50	Shale, purple, as above.		
	50.	Inmestone, as above.		
5600	\$625	Very poor samples leadibly purple, green, flato.	50-50-1 Pressone whit	e, as above, and that e
\$ 5625	5640 80	Shale, purple, flaky and gre	en.	
	20 5	Limestone, white, IR No.		
56l <sub>1</sub> 0	561,5 ha	Chert, bright orange and whi	te.	
	30	Limestone, white, mettled by	mid, I/III VP-FA with	some purpose shallersom?
	The same of the sa	Shale, purple and pale great	ear limes	
561.5		Shale, purpose, flaky.		
- 13	a 30	Idnestone, tan, III WA.		

,	Exam	ined by		t & 5650 - 5780	Field of Aces North Boundary Dates
Şer , r			Snyde		Field of Aces North Henericary Dating
	FROM	TO	%	SHOWS UNDERLINED	SAMPLE'S LAGGED
***) ***:	general jar	4.		Gas Summary Mad: 5550 -9975; k-22 u	mits total gas, 2-6 units semine.
				Cuttings: 5550 -5975 0	I units total gas 0-3 triple at here.
4 1 14 A	5650	5669	50	Limestone, tan, III VFA, wi	th fusulinid framents
الله مون کردو	<b>,</b> , ,		30	Shale, purple, as above,	
1			 ≫20	Chart, as above.	
	5660	56 <b>65</b>	50°		
1	, *	2009.		Limestone, as above	
**			50	Shale, purple and green wit	h Tregments, orange where.
	5065	5675	60	Shale, numple, red, green	silty calcargous.
*			20	Limestone, brom, III M.	
* *** ***	5675	56 <b>8</b> 5 -	100 e.	Limestone, tan, IWA with 1	arge colites showing orange staining.
W 1)		5 <b>725</b>	100	Limestone, cream, IVI-MA wi	
î		To the			
•	5715 à		100	Limestone, tam, I-III WW-FA	
4 3	5725	5735	50	Limestone, as above, politi	c with red shale partings.
1000			50	Shale, red, very silty, cal	careous
	<b>5</b> 735	5740	100	Limestone, white, III FA.	
<b>Y</b> **	5740	5755	100	Limestone, white, Mi-II	
> 4	5755 **	57 <b>60</b>	90	Limestone, as above predom	
		7. 4.			
* <b>1</b>			10	Limestone, white, I IA.	
	5760	<b>5765</b>	.~70	Limestone, white, Fil-II. VF	-FA, predominately IIA
	e e		30	Limestone, white I La	
	5765	5770	50	Limestone, white, III WF	-M. predominately II
			30	Limestone, light yellow, II	
•	i gerina. Light	••	20 -	Limestone, white, I IA.	
	· Muna	rano.			
A P	5770	5 <b>78</b> 0	70	Limestone, white, II A.	
			30	Limestone, white, IVE	seudo-bolitic.
* . *	r who is the				그렇게 하는 것은 이렇게 하는 그는 그를 가지 않아 됐다면 하는 그를 내려왔다면 했다.

Limestone

#### BITTE STAPLES

Examined by	Knighte	5780 10	5900		water T			
	Nivder Fredcin			Fig.	Total Back			**
FROM	4.4	эно <b>ж</b> э вир	ERLINED		AUGUES.	receb		
5780 5785	60	Linestone	white, F-L					
	20	Limestone,	white.					
5785 <i>5</i> 785.	. 00.	Limestone,	white Th					7
<b>57</b> 95 <b>580</b> 0	50	Linestone	whilely D					
	50	Chestone,	wante to it	ent erry, IVFA.				
5800 5805	-100	Limestone,	white, IfI,	/1E-NA.				
5805 5810	100	imeutone,	as above.	dimen.		* A C 1994.		
5810 5815	<b>100</b>	Limestone	whate, III,	11-40-				
5815 5820	60.	Limestone	as above.					
	Lo	Limestone	cream, TVF	k, pseudoolitata	uth bip cr	en <b>finale p</b>	estines.	
\$820 <b>. 58</b> 25	. Bio 🗽	Limestone	cream MI	T. A.				
	\$ .20	Limestone	light gray	f-fri P				<b>5</b> •
5825 - 5830	100	imestone	as above.					₩ .
5 <b>83</b> 0 5835	70	bimestone.	cream, III	rA. Lenja tive To	p Curay 583		5.1	
	<b>30</b>	Dolomite,	light brown	III FATA brace	B and C.			
5835 5840	,100	Dolomite,	tandii 72	S to tr. 6	nd very Lin	charmels.		4
28110 28112		de la la granda de la companya de la	as above	7.4	4			
5845 * 5855	""		as above		5 + <b>v.exy 5</b>	in ichennedi		
5855 58 <b>88</b>		. +0	medium brown					
5860 5865			white III					
	* * * * * * * * * * * * * * * * * * *	*	as above.					
<b>5865</b> 5870	· 2 / 1			it with no poles?	ty.			
	a series	1.	white, III					
5676 5075	3	144	Might become					
5885			medaum brown		secuis.			
5890 5895		7. € jag 11. €-	100	im eel cérecus.		14. JAP		
5895 5900	. 60	Limes tone,	TILL SELECT					

FROM	ŢŎ!	1 %	SHOWS UNDERLINES	Compression	A64E8
5900	5905	50	Limegtone, as above.		
		50	Dolomite, as above.		
5905	<b>5910</b>	80	Limestone, white, I-III M-LA.		
		20 *	Dolomite, as above.		
5910	(591 <b>5</b>	100	Interstone, as above.		4 44
<b>5</b> 91,5	<b>5</b> 920	1 <b>8</b> 0 ;	Limestone, white, IVF-IA with ab	undant large optites	
5920	5925	100	Limestone, white I-III P-MA wit	h delomitic rhembs.	
5925	5930	100	Dolomite, white do light brown,	di maka Maio 16,	
5930	5940	2 <b>0</b> 0	Dolomite, light to medium brown,	111 No. 3-home + 10	
5940	5945	100	Dolouits medium brown, III MA +	2014 11	
5945	<b>5</b> 950	100	Delomita, medium brown, III MA +	10B5 + trace 1_5	*
5950	<i>\$</i> 960 ·	100%	Dolegate, light brown to tan, II	I F-MA.	
396 <b>0</b>	<b>59</b> 65	100	Dolomite, light gray, III FA wit	hr scarce gray shale	partinga,
965	5970	<b>60</b>	Dologite, as above.		
		. 20 ·	Shale, medium grav, calcareous,	silty.	
970 🕺	.5 <b>9</b> 75	70	Dolomite, as above.		

	1		E.		Ξ.		 Same		4. 1	* : 3	1		197
	7	EEK	E	ADI	Ţ	G	 -	<b>E</b>			-	- 100 m	انسب
÷		. · · .	<u>.</u>				4				198	3	

# Mint ou company

# CORE RECORD

AREA OF FIELD North Bounds COMPANY Sheli Oll Company

	· CONTE	EXAMINED BY		WELL I	<b>HILL</b>	E MO. I
/\ <b>x</b> o.		RECOVER SERVE	POSMATIONAL STRUCTURAL AND PROBABLE PRODUCTIVITY PRESCRIPTION OF CORE	evueot.	OPS DAYES	Cons White Carrier Olganica Cognition for
	3.÷		SCHLIMBERGER SIDEWALL SAMPLES	****	1	
				196		
; ‡	2100		No recovery.			
.2	1715		Limestone, Light tan, III-II VF FA fossiliferous, 20% pale yellow spotty	de e e		
			fluorescence, pale yellow cut fluorescence. No cut.		*****	
3.	475		Limestone, tan, III I-LA with rare oil stained fractures 20% fluorescence	5 4 5 g		
			as above pale to moderate cut fluoressence		3, 3	
And the	4730		Limestone, Tan, HII F-LA, with 10% B vuge showing dead brown oil residue.			
			strong uniform bright yellow fluorescence, very strong bright out fluorescence, pale brown cut.			
	ैं		Sample appeared to be fragmental.			
	1					
				19		
* *						
<b>-</b>						
					4.3	<b>**</b>
	3			7		
4.					Ý	
		1 2 2 2				
M.A	1:34					

North Boundary Butte 1

AKAN CELEVO

DRILLING REPORT

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 			3
. (1	PECT	<b>M</b>	-

SAM JUAN VIAH

11-17-58

(SECTION ON LEAGE)
T425 R2E
(TOWNSHIP ON RANGHO)

20 20 20 20 20 20 20 20 20 20 20 20 20 2	DAY	DE	PTH <b>S</b>	a lilian					
Part (180 Part)  Rigged up completion rig. Killed well and circulated water. Pulled 2" tubing, packer and Ouls side-door eqpt. Ran Baker Model K castiron bridge plag set at 1800. Laid down 2" tubing. Ran 2-1/2" Eusting to 1777; perfs 1712-160; seating nipple 1711; Ran rods and ump. Released rig 9-16-58. Poured pulling unit foundation. Set it Is alling sheave on engine.  Pred up wave on engine. Pumping on gasoline fuel until casing a available. No gauge.  20 nours pump and flowed 711 bbls. gross, 117 or 37.2% cut titally lock and pumping.  Pumping.  108 B/D case, 198 B/D oil, cut 16.2%, in 24 hours. Pumping.  109-26  100 btl cass in 10 hours. Shut down to clean all in tanks.  100-20  100-11  100-21  100-22  100-23  100-44  100-24  Pumping. No gauge.  Pumping.  100-25  Pumping.  Pumping.  100-26  Pumping.  100-37  Pumping.  100-38  Pumping.  100-39  Pumping.  100-30  Pumping.  100-30  Pumping.  100-30  Pumping.  100-31  Pumping.  100-31  Pumping.  100-32  Pumping.  100-34  Pumping.  100-36  Pumping.  100-37  Pumping.  100-38  Pumping.  100-39  Pumping.  100-30  Pumping.  100-30  Pumping.  100-31  Pumping.  100-31  Pumping.  100-32  Pumping.  100-34  Pumping.  100-36  Pumping.  100-36  Pumping.  100-37  Pumping.  100-38  Pumping.  100-39  Pumping.  100-30  Pumping.  100-30  Pumping.  100-30  Pumping.  100-31  Pumping.  100-31  Pumping.  100-31  Pumping.  100-32  Pumping.  100-34  Pumping.  100-36  Pumping.  100-36  Pumping.  100-36  Pumping.  100-36  Pumping.  100-36  Pumping.  100-37  Pumping.  100-38  Pumping.  100-39  Pumping.  100-30   Market States of the	PRON	10	Recommendation						
2" tubing packer and Duis side-door eqpt. Ran Baker Model K castiron bridge plug set at 1/80°. Laid down 2" tubing. Ran 2-1/2" E/3 tubing to 1/77°, perfs 1/1/2-16° seaking nipple 1/11°. Ran rods and ump. Released rig 3-16-80. Foured pulling unit foundation. Set 1 f.s. alling sheave on engine.  9-23  9-24  9-25  2 hours punk and flewed 711 bbls. gross, 147 c1°, 37.2% cut tially local at 7). Pumping.  9-26  9-27  30 btl coss, 198 3/D oil, cut 46.2%, in 24 hours. Pumping.  9-28  9-28  30 btl coss in 24 hours, 46% cut, 97 bbls. oil.  5-30  5-30  10-1  Hawking out tanks.  10-2  Heating and circulating oil in lease tanks to reduce cut inc oil.  5-30  Pumped 5 hours. Nade 103 bbls. gross, 73 bbls. oil, 29% cut.  Pumping. No gauge.  Pumping. No gauge.		5975	TO						
map. Released rig 9-16-35. Foured pulling unit foundation. Set  11 Is alling sheave on engine.  12 Is alling sheave on engine.  13 Is available. No gauge.  14 Is available. No gauge.  15 Is available. No gauge.  16 Is available. No gauge.  16 Is available. No gauge.  17 Is available. No gauge.  18 Is available. No gauge.  18 Is available. No gauge.  19 Is available. No gauge.  19 Is available. No gauge.  19 Is available. No gauge.  19 Is available. No gauge.  10 Is available. No gauge.  10 Is available. No gauge.  10 Is available. No gauge.  10 Is available. No gauge.  10 Is available. No gauge.  10 Is available. No gauge.  10 Is available. No gauge.  10 Is available. Pumping on gasoline fuel until casing below. It available. It avail	9-22	4 780 	POTO	iron bridge plug set at 4780°. Laid down 2" tubing. Ran 2-1/2" F. R					
9-24 umping. No gauge.  2-25 2h hours pung and flowed 711 bbls. gross, h47 cm, 37.2% cut tially loadr). Pumping.  9-26 368 B/D css, 198 B/D oil, cut h6.2%, in 24 hours. Pumping.  9-27 30 bbl css in 2h hours, 46% cut, 97 bbls. oil.  9-28 3bls. gross in 10 hours. Shut down to clean all in tanks.  9-29 5 5 6 6 hours. Made 136 bbls. gross, 119 oil, 19% cut.  Heating out tanks.  Heating and circulating oil in lease tanks to reduce cut ine oil.  Small a. One tank shipping.  Pumping. No gauge.				ump. Released rig 7-10-50. Foured pulling unit foundation. Set					
20 20 20 20 20 20 20 20 20 20 20 20 20 2	9-23			hed up sheave on engine. Pumping on gasoline fuel until casing a available. No gauge.					
9-26  9-27  9-28  9-28  9-29  10-1  10-1  10-2  10-3  Pumping.  10-1  Pumping.  10-2  Pumping.  10-2  Pumping.  10-3  Pumping.  10-1  Pumping.  10-2  Pumping.  10-2  Pumping.  10-3  Pumping.  10-2  Pumping.  10-3  Pumping.  10-1  Pumping.  10-2  Pumping.  10-2  Pumping.  10-3  Pumping.  No gauge.	9-24			umping. No gaupe.					
9-27  9-28  9-28  9-29  bbls. gross in 10 hours. Shut down to clean ell in tanks.  10-20  10-1  Hauling out tanks.  Heating and circulating oil in lease tanks to reduce cut inc oil.  Sm. A. One tank shipping.  Pumping.  Pumping.  Pumping.  No gauge.	9 <b>-2</b> 5		Tangana.	2h hours pumper and flowed 711 bbls. gross, 447 oil, 37.2% cut tially load are r). Pumping					
9-27 9-28 9-28 9-29  bils. gross in 10 hours. Shut down to clean will in tanks. 9-29  to dehydrate oil in tanks.  flowed 3 hours. Made 136 bbls. gross, 119 oil, 19% cut.  Hauling out tanks.  Heating and circulating oil in lease tanks to reduce cut ine oil.  Smu. A. One tank shipping.  Pumping. No gauge.	9-26			368 B/D css, 198 B/D oil, cut 46.2%, in 24 hours. Pumping.					
to dehydrate oil in tanks.  flowed 3 hours. Made 136 bbls. gross, 119 oil, 19% cut.  Hauling out tanks.  Heating and circulating oil in lease tanks to reduce cut ine oil.  Smull no One tank shipping.  Pumped 5 hours. Made 103 bbls. gross, 73 bbls. oil, 29% cut).  Pumping. No gauge.	9-27								
flowed 3 hours. Made 136 bbls. gross, 119 oil, 19% cut.  Hawking out tanks.  Heating and circulating oil in lease tanks to reduce cut ine oil.  Smu. A. One tank shipping.  Pumped 5 hours. Made 103 bbls. gross, 73 bbls. oil, 29% cut).  Pumping. No gauge.	9-28			obla. gross in 10 hours. Shut down to clean pil in tanks.					
Hauling out tanks.  Heating and circulating oil in lease tanks to reduce cut ine oil.  Smull n. One tank shipping.  Pumped 5 hours. Made 103 bbls. gross, 73 bbls. oil, 29% oil. 2 B/D gross rate 292 L/D oil rate, 29% cut).  Pumping. No gauge.	929			to dehydrate oil in tanks.					
Heating and circulating oil in lease tanks to reduce cut ine oil.  Smill no One tank shipping.  Pumped 5 hours. Made 103 bbls. gross, 73 bbls. oil, 29% click B/D gross rate, 292 L/D oil rate, 29% cut).  Pumping. No gauge.	9~30			flowed 3 hours. Made 136 bols. gross, 119 oil, 19% cut.					
Snu. A. One tank shipping.  Pumped 5 hours. Nade 103 bbls. gross, 73 bbls. oil, 29% cd. 28/D gross rate, 292 L/D oil rate, 29% cut).  Pumping. No gauge.	10-1		•						
Pumped 5 hours. Nade 103 bbls, gross, 73 bbls. oil, 29% cit. B/D gross rate 292 L/D oil rate, 29% cut).  Pumping. No gauge.	10-2			Heating and circulating oil in lease tanks to reduce cut ine oil.					
Pumping. No gauge	10-3			Smul no One tank shipping.					
and the second s	[0= t			Pumped 5 hours. Made 103 bbls, gross, 73 bbls. oil, 29% collection B/D gross rate 292 b/D oil rate, 29% cut).					
Pumped and flowed 24 hours. Made 925 bbls gross bols oil, 54% cu				Pumping. No gauge,					
	10=6			Pumped and flowed 24 hours. Made 925 bbls gross a 5 bbls cil, 54% cu					

		.00	MOITICH	AT BEGINNING OF PERIOD						
1		HOLE		GASING SIZE	DEPTH SET					
-	O/ZE	PROM	70							
	, t									
					•					
-	DRILL	IPE								

(FIBLE:

COUNTY)

SHELL OIL COMPANY

North Boundary

was so Butte

DRILLING REPORT

11-17-58

T425 R ZZE

DAY	DEPTHS			
45. 171.000	PROM	70	REMARKS	
1.0-7	3975 41 <b>5</b> 0	TD 23TD	Pumped and flowed 1222 B/D gross, 630 B/D oil, 48% cut in 24 hours. Shut in for storage.	
10-9			Pumped and flowed 24 hours. Produced 497 bbls. oil. Not cut. Water meter broke. Repairing.	
10-10			Pumped 24 hours. Made 767 B/D gross, 467 B/D oil, 39.1% cut.	
10-11			Pumped 24 hours. Made 595 B/D pross, 470 B/D oil, 36.9% cut.	
10-12			Pumped 24 hours. Test data delayed 1 day.	
10-13			Pumped and flowed 24 hours. Made 437 B/D oil. No gross production out. Nater meter broke on heater. Repairing.	
20-44			Pumped and flowed 2L hours. Made 450 bbls. oil. Not cut.	
LC-15			Pumped and flowed 2h hours. Made 421 bbls. oil, no cut.	1
26-16			Pumpe and flowed 24 hours. Made 281 bbls. oil. Not cut.	
10.17		5.	Pumped 350 bbls. oil, not cut, in 24 hours.	
10-18			Pumped zh nours. Made 245 bbls. oil, not cut.	
10-19			Pumped 2h hours. oil, not cut.	
11~17			Recompleted 10-4-58. Pumping 6 hours, 73 bbls. gross (290 B/D rate) cut 1.0%. Representative Initial Production: 344 B/D gross, 275 B/D polyment, Out 20%, No Gas Measurement.	imp
	•			

-	GC	MOITIGIS	AT BEGINNIN	g of Period		
	HOLK	-	GASING SIZE	DEPTH SET		
SIZR	FREW	то				
1-14	C)	103.5	958"	1012'		
7/8" 343 5775			5 /a "	547 <b>5</b> ′		
				4		
DRILL!	PIPK					

# rin Boundary Buste (rise) San Juan

DRILLING REPORT

	(GOUNT	ti i	(bilgelin so supplied)
DAY	C DEP	THS	
	PROM	1 10	**************************************
	1		
3/21.	4	5320	Killed wolls. Removed Xmas tree and ruged up B.O.P. Unsealed
		B.P.	packer and pulled out of hole. Removed plug at Otis sub consisting
			of balled friction tape, packer sand and tar. Ran tubing back in hole with bull nosed perforated tell at 5282, perforations 52781-52821 Lane
1			Wells packer at 4781. Othe side door sub at 4751. Removed BO. Landed
			1 out is an agnut, instatted Imas tree, and rigged in Tabrica the The Contest
· · · · ·	10.5		Dual veu swadding at 1930 Fm. Madell swad runs, well startade light at 1930 Fm.
3 m			1 of pure standard atternately from casing and tubing with hotel was in
4			and tubing line cuts fell below 25%. Ran in with wire line Otio tide door mandrell (B & B service) at 11:15 pm. Started blowing upper sone,
1	13. A. A. A.		1 - 그는 이렇게 하겠다는 그는 그를 가는 그는 그는 그를 가는 사람들이 그는 그를 가는 그는 그를 가는 그를 가는 것이다. 그를 가는 그를 가는 그를 가는 것이다.
1.1/22			Blew upper zone, 4008 -4750; alternately through casing and tubing until
J			I could kee all phone being kees taken for binder tongs hot by the there is an in-
13.7		3,287	336 B/D through tubing. Casing flowing pressure, 400 psi. Shut in upper sone at 3:30 AM, removed side door mandrell and ran in straight
			I wirough mandrell. Started blowsfirelower rose Flog, Fogo, Alimathic ( )
			butter
4			Marchine   Jan Geolling Co. 25% at 110%() AM 25%() AM 25%() an right and and contact the Harrist Silver of the
14		1	1 - + + + + + + + + + + + + + + + + + +
	A.7		ing into the next day. Salinities during the whole period increased from 25,000 pem to 40,000 pmm, separator pressure steady at 48 psi, recovery
	1969. 1948.		very erratic settling at 100 B/D rate.
13/27	7 95 Capay as 1		
-	, <b>*</b> ,		Continued blowing lower zone. Drilling contractor put on standing 8:00 AM, released at 8:20 AM, but dropped from 22% at 6 AM to 19% at 199 AM.
2 (**)		**	THE SHOP WELL VILLE SOLL THE WAR SHOP SANSTALL THROUGHTON ( ) THE START WELL SALES S
1	4		TOURS SOLVE OF THE PROPERTY OF
	*		shut imat 1:15 PM
			Georga Noland Drilling Company
<b>1</b>			Drillers: H. E. Clamanta
			T. T. Glazebrook
	id, et al.		S. B. Lewis
		<b>X</b>	
<b>4</b> ~ 4			
<b> </b> -{			
	CON	DITION AT	BEGINNING OF PERIOD

- 1	CONDITION AT BEGINNING OF PERIOD											
ė	HOLK	. (36) 	DAGING SIZE	1.2.0	DIPTH	H 881						
MIXE	FROM	70 ,					4.7					
12 1/4	[ ]			. oje sja∗		y Y	- Mariet					
XZ: 1/4		1023	<b>9</b> 5/8#	3	10121		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
7 7/8	10231	59751	5 1/20		54751	· Min	3					
pr 10			7 776		<b>フ</b> 4(ス・							
				37. 8	<b>刘</b> 章	W 12 16	A. C.					
777		<del></del>	17. 17. 18. 18				. 74					

# North Soundary Butte San Juan, Urah

# DRILLING REPORT

3-20-55

2 S R 22 E 811

-			(TOWNSHIP OR RANCHO)
DAY	DEPTHS		
	PROM	το	RIMARKS
3/14		5450	Coming out of help with present Mac
1		PBTD	Coming out of hole with unfired McCullough gun, jet strip hung up at
			3716', and the 62' jet strip was lost in the hole. Went in the hole.
	*	Bridge	Cullough wire line spear, could not pull fish. Went is with bit in at tempt to push fish to bottom, no success. Went in hole with tubing and
		Plug a	
		5320	4 3/4 bit to drill up fish. Drilled on fish and pushed to bottom
			(5316+). Pulled out of hole. Ran Baker wire line junk basket (McCul-
1.			Lough) and retrieved glass fragments. Perforated, (McCullough) with h
			jets/ft. the intervals 4688-4694, 4703-4714, and 4720-4750.
Ra			2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
3/15		5450	Ran in with Johnston straddle test tool for production test #3, top
	•	PBTD	packers at 4660 and 4665, bottom packer at 1764, tubing perforations
***		5320	4729'-4764', two outside pressure recorders below bottom packer, two
<b>,</b> , , , , , , , , , , , , , , , , , ,		3.P.	between backers, 1/2" subsurface pear. Dropped har at 5:00 A:M.
	-		blew non-inflantable gas 1 1/2 hours. a great section of the secti
1.			Rigged up and made 4
			swab runs in 3 hours, 30 minutes, recovering 1 bbl. of mixed fluidmon 2
		j	Lirst run and nothing thereafter. Waited on adidizers. 3 hours. Action
	100		treatment (Dowell), interval 1688-1760. Began displacing took and and
		1	(15%, AF-32) into formation at 12:20 P.M. Maximum pressure on this into
			4290 psi, casing 4000 psi. Blew gasket on B. J.P. after displacing 2 hall
			into formation in 13 minute. Resemble acid treatment after ho minutes.
		Ì	1 ROLGING 7500 DET DECK TREASURE OF FOLIAGE MARKETINE FROM THE COMME
	f		2nd attempt, 3700 psi. Labeled water underflush. 10 minutes. 6. Under-
2			Alworder doubt with it not water water to be committee to might be a might
A SECOND			went away at vacuum. Total treatment bine, 1 hour, 15 minutes. Made 1
, ,		i	swab run immediately after treasured, found fluid level at 1200+, swab-
	1.74		had from 200 off bottom, radovering 12 barrels of oily acid water
			Well blew in at 2:10 P.M. By 4:00 P.M. well was flowing at a rate of
	*		7hh B/D gross, 632 B/D oil, cut 15%, salinity 47,000 ppm (NcCl (t)), gas
			strong H2S odor. TP 190 psig.
	ta ta		201018 1150 0001. 15 140 0218.
3/16		5320	Continued production test #3. At 2:00 A.M. rate had fallen to 372 B/D
٠,		Bridge	Eross: 32/ B/D Oll. Cut 126. 35.000 now salinity. 365 neig firm all sala
	(A)	Plug	choke. Production test continued into the next day with recovery rate.
			gradually declining.
·			
	<u></u>	L	

	HOLE		CASING SIZE	DEPTH SET
#IZZ	FROM	10	1 to 1 to 1	
12 1/4	0	1023	9.5/8	1016
7 7/8	1023	5975	5 1/2"	5475

# North Boundary Butte

DRILL PIPE

DRILLING REPORT

San Juan Utah 5-2

T. 112 S., H. 22 L. SIL

DEPTHS DAY FROM Killed well at 12:15 A.M. During the total flowing time of 34 hours, 5 minutes, well producted 194 pols. goss, 429 pols. oil, gravity 10.50 API dry, 65 lb. water. Final rate (unstabilized) was 216 M/D gross, 190 B/D oil, but 12%, Salinity 33,300 ppm, 14:20 MCF/D (stabilized) of sour gas at 170 psi; through a 5,8% pear. Killed well and puseated packer, 1 1/4 hours. Came out of hole, 2 hours. Broke down and cloaded and location straddly occluse hours. 3/17 5320 ed Johnston straddle wool we hours. From pressure recorder below hat tom packer, IHP 1980#, FHP 1610#, no leak: between packers, IHP 19040, IFP (before acidizing) Octacid squeeze, 4740#, IFP (after acidizing) and swabbing) 1515#, FFP 1515#. Unloaded and made up Halliburion straddle test tool, I hour. Ran in hole with tubing and tool, 2 1/2 hours. Packers at 4658, 4765, tubing perf. at 4758-4765, no subsurface bean. Rigged up to acidize and started acidizing (Dowell) at 9120 A.M. interval 4688-4750. Injected 250 gal. of fix-a-frac followed by 42 gal. of water at a maximum presoure of 800 psi, 3 bbl/min., followed by 500 gal. of acid (XF-32), maribus pressure 2000 psi, breaking to 1500 psi in 3 minutes, dropping gradually to 1300 psi during the injection of 1000 gal del X500, followed by an coerflush of 1000 gal acid (XP-32). Rates of injection were 1-1.6 bbl/min. Underflushed with 735 gal. of water at a pressure of low psi, i obl. min. Last portion of mater went away at a vacuum. Total treatment time, 50 minutes: Swambed for 3 hours, making 6 swab runs recovering 10 bb?. Well began to flow on 6th swab run af 12 55 P.M. (Production test #3A). Rate first 4 hours 1100 B/D gross, 690 B/D oil, cut 3/h, salinity 25,000 ppm (NaCI (t)), 2500 MCF/D gas, gas pressure of 215 pai through a 5/8" bear. Production test continued into the next day with declining rates and increasing pressures. 3/18 5320 Killed well at 1:10 P.M. During the total flowing time of 24 hours 45 minutes, well produced a total of (09 bbl gross, hts bbl of the stabilized) 312 B/D gross, API bil, 166 bbl of water. Final rate (not stabilized) 312 B/D gross, B.P. 262 B/D oil, out 16% salimity 5 , 600 ppm, 1700 MCF/D at a pressure of 230 psi through a 1 bean. Strong HoS oder. Killed well with water. Pulled out of hole, 2 hours. Removed Hydrell, 2 hours. Ran in hole with tubing and Otis side door choke, 2 hours. Tail at 5282', Lare Wells BOCH type 5 1/2" production racker at 4,82", Otis side door sub (Model 11.403) at 4751. (Side door mandrell, 24PA1; straight through Mandrell 10P05.) Removed BOP, I hour. Landed tubing on donut, install Knas tree CONDITION AT BEGINNING OF PERIOD HOLE CASING SIZE DEPTH SET \$1ZK FROM TO

David M. Fradkin

North Boundary Butte

San Juan, Utah

#### SHELL OIL COMPANY

#### DRILLING REPORT POR PERSOD INCENS

3-20-55

	Vis	цŝ	36	7.		<u> </u>
:	35			- 47	17	

DEPTHE DAY 3/19 Finished nippling up. Made 5 sweb runs (side door mande) in hole and well began flowing at 5:00 A.M. Blew upper zone through tubing 5320 B.P. until 12:30 P.M. with final tubing cut of 20%. Blew upper 2004 (1600 14750) through casing until 2:50 P.M. with final cut of 20%, salinity 28,000 ppm (NcCl (t)). Final production rate through casing of 564 gross, 435 B/D oil, cut 23%, 9500 MOF/D gas, gas pressure of 456 pst through 1" bean. Pulled side door mandrel first ally stuck and in stalled straight through mandrell (B & R service), three hours; shut in pressure on casing, 1100# in 15 minutes. Swalled the later some (5108-5282) 6 times recovering 2 1/2 bbl. of fluid on first run and nothing thereafter. Tried rocking lower zone with casing gas, ho success. 3/20 5320 Made 6 more swab runs (total 12) recovering no fluid. Tried working lower zone with casing gas, again no success in unplugging. left casing gas (pressure 1100 psi) on plug at chare for an hour and leased, no success. Blew upper zone and tried to siplem up plug, no \*B.P. success. Pulled straight through mandrel (B & R service), noted ball ed friction tape in mandreil. Flew upper zone and insuccessfully tried to siphon up plug, after lewering sinker par and focating plug at base of Otis sub. Lowered sucker rod on sand line and unsuccessfully distempted to break up plus, 2 hours. Nippled up to kill well and will tubing.

CONDITION AT BEGINNING OF PERIOD							
	HOLE	(S.51	CASING SIZE	DEPTH SET			
SIZE	PROM	10			- b		
					,		
					1.4		

DRILL PIPE

Contractor: George Noland Drilling Co.

Drillers:

T. T. Glazebrook H. R. Clements

B. Lea

# North Boundary Butte 1

San Juan, Utah

DRIGANG REPORT

(утинов)							(Spiragelle on Suggrey)			
	, per	PTHS*								
DAY				parts.	Anks					
	PROPER	70								
3/7		5975	Tananh	ed rushing Schlas	harana E S	mid <b>e</b> d_leg	and eart the	ound I		
] 2/1		7. D.	Tetano	log, gaining ray-pe	margary as a me	nmeter loss.	Ran seism	THE COLUMN		
			Ta color	Took & Schlund	erser sidewa	li samples.	Laid down d			
1				arrel and part of						
		1	. * * * *							
3/8	A. Francisco	5975	Ran in	with open end di	ill pipe. Ge	mented (Hall:	burton) div	C. Marchago.		
4 7		T. D.	gopen er	ad drill pipe hun	g at 592577	Pumped 10 b	arrels Hope	read and the		
			3 barre	els behind. Used	100 sacks o	f Ideal Cons	sruction com	ens. 115 P		
	# 1 S	1	pound	slurry. Displace	ed with 70 h	arrels of mu	d. Ass in w	1417 (477)		
			- Josit to	5500, circulated	La hours.	Came out of I	pole and 1910	d down		
	3 48		drill	oipe. Ran 129 jo	nats of 52",	Toponna, s	spang, o	round		
				. L. T. & C. cas ed casing [Hallie						
		1		and slurry, last						
	<b>V</b>			ced with 127 barr						
		- Sept. 3:		plugs. Started						
1	**	46		ent 5 3/4 hours.						
	100	T								
3/9	18.6. 18.9	5975	Picked	up 3" Kelley and	Fan 175 joi	nts of 2 3/8	, upset	74, 190		
		plug	thread	, Jacan, K. S. S	. tubing wit	h'u 3/4" bit	. W . O. Ca.	0 hour as		
		5450	Change	d rams and displa	iced mud with	water. Dri	lled plux, b	errle plate		
1	343		154381	and coment to 5	21501 No S.C	, #1 Johnston	n Spoot	e toor goor		
	}		4, type	251 at jets at 51	Supe	uriace bean,	packer >	aly, tall		
			D100 5444	o, 4 air cushion air decreesing to	uropped o	ar at 1125 P	. M. TORUL OD	en, I nom		
				id loss in annulu						
g ·				n 825 ppm NaCL(T)						
	S	4	#/gallo	on. IFP, O; FFF,	0. HP 2615.		p,			
<b>1</b> ,3	100									
3/10		5975	WSO #2.	Johnston Shoot	-N-Test. Sh	ot 4 type 26,	A, 🥍 jets a	T 1622"		
		plug	g sub	surface bean, pas	kers at 4632	i and 46071,	4' of air c	in the interest		
	Provide Services	5450		ide pressure reco						
		14,5	below	bottom packer. [	ropped bar a	t 2:03 A. M.	Very stron	g blow and		
		<b>4.</b>	rapid	fluid loss in ann	ulus. Leaky	top packer.	W. S. 0.	4		
		ه هد	Jet no.	les at 1622 Joh	nston conven	tional strace	Te foot wir	n packets		
			record	2 and 4637, 18	suosuriace o	ean, to or	air cuspion.			
150		*	ULCODE W	d bar at 7:11 A.	wa, c pupasu Ma Tool one	re recorders	minutee Pi			
1		1	decreas	sing to dead in h	minutes. R	ecovered 15	(.06 barral	S at mates		
			salini	ty nil. $8.7 \#/gal$	lon. IFP 0	FFP. O: SI	Р. 0. ИР. 20	70		
	CO	NDITION	at weginning q	PPERIOD	Pulled and	Laid down t	est tools.	ap seed		
	HOLK	1	CASING SIZE		line, ho	ir. Ran McC	ullough neut	Par ICE Tad		
SIZX	PROSE	70	A		collar loc	ator. Perfo	rated (McCul	Mark Land		
A. T	1				intervals	130-5427, 5	4 <b>20-</b> 5390 <b>53</b>	W-5335		

121 0. 1023 7.7/8 1023 5975 9 5/8 45n 16.6 #

### SHELL DEL COMPANY

North Roundary Butte

# DRILLING REPORT

en Juan Utah

DMLL PIPE

March 13 1955

1 2 2 22 23

بيها فبسبب بالمساورة	البدير بالسيب حجوب	_					The second second
		THE					
DAY		1145	1			**************************************	
	Phoe	TO	-	RUMA	•••••		P CARTINE
-		-	-1				
3/11	s in the second	59.75	Dimodu	ation Book #1 lat.		ביים ביים ביים ביים ביים ביים ביים ביים	
71.77			FLOUL	ction fest #1, inte	LANTE 2470-2451	-24429-5390	A TANK
		blag	in tu	oing with Johnston	disc, set at 535	tail to 5421	A. ALCOHOL: NEW CO.
		5450	perfo	bing with Johnston rations 5417-54213.	Dropped bar at	2817 Y W. W. DC	OLONY
			Dropp	ed second bar at 5:	25 A. M. No ploy	v. Noted about	75 110
Vs. 1		*	in an	nulus. Unseated pa	oker at 5-113 4. 1	I. Immediato	the second second
1-		1 · 20	Resea	ted packer at 5:45	A W Blow dead	of Edit La Ma	
			Juhri	Aston and hanconed	a. m. prom creat	- 4. Elion L (1922)	A STATE OF THE SECOND
			Tubit	cator and prepared	90 Swad, Fam Swad	0 00 0421, 133	THE RESERVE OF THE PERSON NAMED IN
	*		Socke	t. Pulled tubing.	Recovered swab.	Man 2" tabia	Set
			Harri	burton HM packer at	53541, tall to	420½, tubing	Der Faren and Land
]			5416-	54202'. Actdized t	he interval 5374	-5430. Started	to acceptant
		l	Dowe	11) 12 noon. Injec	ted 504 gallons	5% acid (XF-32	). 3000 beat of the
	1 12	f '	maxim	um pressure, broke	to 750 psi: follo	wed by 92L sal	lone del Victoria
4		<b>l</b> '	maxim	um pressure 3500 ps	d minimum and fi	nal nrageura	000
		•	pyers	on rate of initiation	on 27 and 1 and 1	minuta pesame	
			100	ge rate of injection	u bisserrou ben	mrunes torton	AL THE STATE OF TH
	A Company	į.	1770	cid (XF 32), initial	. pressure 2000 ps	a, maximum pre	ADDER TOO OFFICE
			dispi	aced with water, ma	ximm pressure 29	OC psi, final	A district Print By
			[ Final	rate 2.7 barrals p	er minute. Potal	time acid in	CONTRACTOR
**	- 13 ( )		2 hou	rs. Rigged up to s	wab. Started swa	abbing at 3:00	P. M. MARKET
*			7 swa	b runs, recovered	0 barrals of an	nt acid and wa	
	1		146.0	00 ppm NaCL (T) dec	reasted to 100.00	00 non (%)	
	7 19		flow:	ng gas at 7:20 P. N	mas human and mid	rollon angere d	
			vapor	of 100,000 ppm.	Dillied Wit	u orange cotor	
			a vapor	or 100,000 bbar			
2/12		5975	0				
71 -4			Ugas ci	ontinued to blow, re	aching a pressure	or 30 pan enr	OUGH 5/57-DEED
		plug	at 2:	30 A. M., calculate	d rate of LCO MCF	/D, and stabil	LEGE ST. LOSS
		5450	point	for 2 hours. Wate	i vapor was produ	iced at a rate	of the state of
		1	per a	LOO,OOO ppm NaC	<b>1</b> ( $1$ ) salinity, $2$	?-3% oil (1 ha	trol ber les
	\$		T. P.	300 psi. H2S dete	cter gave a sero	reading. Well	THE VIEW OF THE PARTY OF THE PA
× 4			at 1:	30 A. M. Pulled to	bindwand nacker.	Set medel N B	
		1.	bride	e plug on wire line	21 58200 Parfo	ALIVO ON LA Sea	the training of
			tete	and foot interval	388 507 5066 76	OR CARL STORY	
		3	¥ 163 m	per foot interval 5	200-7214, 7200-72	00, 5104-51002	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			העסיה היים	with Halliburton	nm packer at 5000	o, troing bent	oranions to
3.1	6		7617-	52761, tail at 5276	s. kragaed no to	acidize. 3 Star	THE TAX AND THE PARTY.
ं ें भू		<b>]</b> ,*:	( Dome	11) at 6:17 P. M.	Injected 500 gall	ons 15% action	11-12-1
			ps1, 1	maximum pressure br	oke to 4400 psi,	breaking again	to 3560 per 1
			10 mir	lutes. Followed wi	th 3000 gallons .	el X500, maxim	In Orest A
	* 9		4790	osi, minimum and fi	nal pressure 2500	nsi. averages	rate of the
			infec	tion 97 gallons per	minute. Rollows	od with 3000 as	114
		G <sub>k</sub>	[XF-3	), initial pressur	2600 pet massim	um onecours 36	
<u> </u>		. 45	with	66 sallons water m	o said har mayin	onecome 1050	
SCHOOL SHOP SHOW	CON	HOLTON	AT BEGINNING	OF PERIOD	evimmi aim itiigi	pressure TAPA	
	HOLE	in party	CASING SIZE		2.5 barrels per	minute. Tota	P PINANGE OF THE PARTY IN
			CVRING SIZE	DEPTH SET	formation 2 hou	rs, ou minutes	200
	PROM	70			swabbing at 8:5	UP. M. Made	avab transport
	1	- 1			recovering 15 b	arrels water	od spent and
<b>^</b>	1 1	. 1			* Well began to f	low at 10:00 F	M. at M tor.
	1				imitial rate of	274 barrals	THE STATE OF
	7	•	and the		41%, salinity 1	77,500 77	
فيد ي						A PART PART OF THE	
14.3		<b>L</b>	· ·	· · · · · · · · · · · · · · · · · · ·		1.7, Tel (2.25), 3, a	

D. M. Fradicio

### SHELL OIL COMPANY

### North Boundary Butte

DRILLING REPORT

North	(Marp)	Duve		POR PERSON ENDING		4 -	TION OR LEADE)
San ir	an litab			March 13, 1955		T. 42 S.	R. 22 B. S
	(COUNTY)						
	DEPTH	16	· ·	*	3	•	
DAY	in the state of the			REMARKS			
	Prode	10					247 ,
*3/13		5975	After flowi	ng a total of 20 hg	urs, rate stabi	lized the L	ast u nours
		ridge	at 216 barr	els per day, cut 6% gh a 5/8 choke (40	paid pressure	separator	pressure of
1		plug 5320	700 nei 70	Call neoduped a tota	i of us parreis	March elic	⊸ سبوت تسورے
\.\.		ا ۱	- 0 18U 4DT	(dury) magnetites of ]	Trilled Well 371	In water at	CALOR WWW. MPT 1
			73. 17 - J Asshar	an describe against	) - P3 aa <b>aa</b> n 110 T.O	neriorate	f 置いつけいするからける。
			Ran in to p	erforate with jet s	trips, gun did	not lire.	Regan to burn
		, ,	gun.			200	
	1		George Nola	and Drilling Company	•		
	<b>}</b>		3333		• }·	•	
	194		Drillers:	T. T. Glazebrook			
400				H. E. Clements			
er i		**		E. B. Lewis		•	
				$\mathcal{E}_{\mathcal{A}}$			4
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<b>.</b>					c.		
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						and the second	9
-		NDOTON	AT BEGINNING OF PE	RIOD		•	
1					,		

DEPTH SET

GASING SIZE

HOLE PROM

### SHELL OIL COMPANY

DRHLING REPORT

### North Boundary Butte San Juan, Utah

(COUNTY)

For Parion Report

Section 3

T. 428 . T. 228 . 3 5 F.

DEPTHE DAY FROM 2/28 54631 55421 Drilled 791. Treated mud with starch, preservative, gypsum and sait 2/1 55421 56371 Drilled 95'. Treated mud with starch, grosum and preservative. 3/2 56371 56831 Drilled bo. Changed drilling line, 3 hours. Treated and with salt get starch, gypsum and preservative. 3/3 56831 57811 Drilled 981. Treated mud with gypsum, starch, salt gel and pre 3/4 5781 1 58721 Circulated up samples 2 1/2 hours. Treated mud with eart gel, starch, gypam and preservative. 3/5 58721 59301 Brilled 58'. Circulated for test, hours. Made up test tool, 1,1/2 DST #8, 5807'-5930', Johnston testers. Ran tester with dual 6 1 tail packers at 5802' and 5807', 3 outside pressure recorders, 3/4 surface bean, perforations 5807'-5825' and 5913'-5930', 30 foot atta cushion. Tool open 2 hours, 25 minutes, shut in 1 hour, 15 minutes. Strong blow decreasing to good in 5 minutes, steadily increasing to strong at end of test. No fluid loss in annulus. Recommed 1220 bbls) fluid including 350' (4.7 bbls) GWM, 270' (3.6 bbls) GWM, and 600' (5.8 bbls) black sulphur water. Feet Above Tester Description Salinity(t) NaCl Gas T/M (Ret. Eng.) 1140 Gas cut had Neg. reading 1050 9.0 Gassy watery mud **h/**0 9.04 780 Gassy muddy water 52,000 Neg. reading 1,20 Ec. sulphur water 72,000 90 No fluid heading cleaned stand of pipe 30 Hc. sulphur water 73.000 Bk. sulphur water 73.000 ISIP 2100, IFP 135, FFP 525, SIP 1965, nearly stabilized 40 minutes AP 3030. Mud before test 9.7#/gal., 11/3 (T/M) gas, 150 ppm. Treated mud with gypsum, starch and preservative. 3/6 59**36**1 59751 Drilled 45. Broke down and loaded Johnston test tool, 1 1/2 hour. Ran T. D. in with new bit, 2 hours. Circulated 1 1/2 hours. Came out of the content of the 1 1/2 hour. Higged up for Schlumberger 1/2 hour. Started reading lo

	HOLE		CASING SIZE	Ç DEPTH SET
多注意	FROM	70		
12 1/4	0	1023	9 5/8"	10121
7 7/8	1023	54631		
DRILLI	We L	1/2 <sup>n</sup> .	<b>16.</b> 6#	

Mud Summary Weight 9.8#/gal. Viscosity: 48-54 sec.

Contractor: Geo. Noised Drilling Co. Drillers: T. T. Glazebrock

H. E. Clements

b. b. wouls

DAY	ber	TH8				***			12.12		
ert gerja	· PROPE	•							4	-37 W	
1		*			*	A ***	Mis V			7,440.0	
2/ 25	5897	.5377	Prille	d 80 t	Treated p	nid with	C719.44	Distant	#14 MEL 3	sapet e	
			86.					MA			
2/26	5372	-5438.	Drill.	d our.	Ofree late	d up sa	makes 1	hour.	Destac	Aur es	
			Dr e	servativ	, dtarof	and sa	it geli			CASC MAKE	
2/27	54 <b>38</b>	.5463	m Drille	d 25†	Circulate	d Ear D	STATE	Liboura			P
1			10%		* Apr. 1	· 一种	* 7	1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
1.			Robbet	ST # 7,	530745WW	John	ston ins	ters. I		e alti	wat the
	N. F		record	ers. 3/4	" SubSurf	ase bea	ns peri	orations	<b>3</b> 307-5	329 BLA	8,5 M.Z
			30 ° ai	r dushio	n. Tool	open 2	hours, 3	o minute	s, shut	in Line	
		3.	surfac	e 25 min	trong blo	remail a nil.	No fin h	cana ani	oughout.	LOST.	Table
		1	2901	2.1 barr	els) vary	gas ou	t Mad				
			PRESERVE A	BOY'S		dai.	THE THE	BOTAS	r cas		posturia
	7°4 i		TESTER	19	ESCRIPTIO	m (C)	OR NACL	PALE	(1/10	TOTAL STATE	
			300	* / * * * * * * * * * * * * * * * * * *				7.7			
	And the second		**too	l Gas-	Cas out	and Car	150	220/ 86/			
*	St.						the state of the	ri ing satawang. Kabupatèn			****
				35	ouer det	1		4			
			ISI	P 1815	TPP 150;	TO A	stp +	015 nearl	y stabil	Lyedraf	
1		: ×&.,		utos. HP		• •					
		la a a a	180		2206		The Sales		1 0 M C 100	31	
			la de la companya de	Mud be	fore test	9.8 po	anda per	gallos	150 pps	ı. 16/11	4/41 E
2.3				Rotar	y Gain Und	ta 🐪					
	* * * * * * * * * * * * * * * * * * * *		Tre	ated mud	with sta	rah.					
1				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							****
				Checke	d BOE des	<u>ly</u> .					
						r sala <b>M</b> a	ad Stammer	MP			
	ं ्		*	Weight	9.3-9.8	#/ gal.		S	alturw		O DOM
	Paradana 17			¥1. 11	3-87-312:	2, C. C.		j	. C. 2/	2.	•
	HOLE	A MOITION				Con	tractor:	Cankba	Noland.	Bert 11 (no	· Cal
OTEK	PROM	TO 🚜	BING SIZE	DEPT	H BET		10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 mg 10 10 mg 10				
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850	L PIPE						and the second				

#### DET THE BEST OF

<b>9</b> 47	77 <b>9</b> 27		* ***		1 M	<b>.</b> Y				
		· 740-7.								
2/16	1861	A	of Leaves	A Manager	an manada	ALL AL			12	
		11/19	Jan 20	alectrica	survey.	reralbe.		olo.		
	3		Paratec .	alectrica nd waited	n omers.	I hour	eede us	See .		44.332
w. 1		1 199	1 128T # 4	Lobes to	and I hour	24 minge	<b>44)</b> / 4, 12			
*	3	V.5.4	A A CO	alia preser	ration.		4	1.5		17 10
2/17	1781	1.829	DATE THE LIS	te Tabur	Planshed .	zinad na	44 de (5		i bout	111
7.			. attempt	in a saur	cutile oil	in gril		ar Dane	and a	· Care
	7		in o hours	nust Lady	stands to	fluid an	dividant ou	0.00	4 (10 10 10 10 10 10 10 10 10 10 10 10 10 1	+ 12.7
	*		tool.	Lacur be	tercom and	Toaded	out tool	1007	C DIME	100
	. j	*1	volume,	and preser	amed to DOI	100 · AT	and the			***
***		00 1	gypour.	Su.	A CONTRACTOR		<b>*</b> 3		7	
			rosz # 1, A	731 -4749"	. Straddle	Cost, J	chnsten	Lesters,	74.00	Mobile .
. 47	Property.	3.	packers	. at 14/200	and 4731	and 1.6	ophie	tional	e in ho	14 030
7		. #	at 11/119	Four pubsi	cesure rec	orders	two outs	de and	tan (bel	
		* .4	packer,	or water an	irrace and	To Suria	hour Sh	and the time		
	3 A A	<u></u>	Very st	reng blow	intediately	. Inf ta	mmable e	as to a	u fece	
	· 基 · **			4 44 4 45 45 B	P COMPANDE PO	Mark Prima And	4 20 P P P P P P P P P P P P P P P P P P	PH 200773		
	√ <b>%</b> : *		190 MCP	Di Green	sh brown o	il to su	rface in	PIO MIM	Liet. P	William !
	4	· -4:1	into be	st tanks a	total of	20 cerr	els of	In was		FEEF
	W. W. "		averava	tes after	west was en	Took a	MA LOW	ine san		
			5.54 BS	913 barre & W. Unal	le to reve	rse-circ	ulate fli	id out	<b>水管型</b>	
M:		महे क्	. woulled	erall pipe.	leaving I	luid in	hole.	hird to	A devis	
		. 1	culatio	n valye con emulsien 1	neisted of	2701 (1.	3-barrela	a) visco	ME OIL	1100
	dan e		ensitede	). Bettom	vith strong	H25 Odd	cutch	A OF	mostly	Fron
			*maximum	salinit	3300 dom (1	ODT COMP	TO COM DAY	Mark C	Tarri Ma	
						, and the second	Section 1		***	M
1		Oye &	Tenk Se	mile .		Star St				BE CA
	1 - N-1		Member		Descript	ion		*****************	<b>112</b> /2	
		- [			ر د کا منسمستان		marker Alaces	Man		2 <b>80</b>
	*	9	2		n brown oil			odor odor		486
		v // **.	3	. Wee	n brown oil	with st	TOWN THE	and the second	S ME	180
, t			L.	greb	de nuova	with st	rong las	odor "J	. B6. L.	
****						THE WAY				
	CON	DITION AT	BEGINNING OF P	COO E	*					
	HCLE		HNG SIZE	The busy					-	
· land	THOU TH								100	
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7. 7	6-1023					7 4 8		* 1.		250
	The sale	XY.	5×8*	2012		*	1	4	7	
**************************************		W.L					Daniel St.		***	
100	1 31					K 3 10				
*****		1.4	***	A CONTRACTOR OF THE PARTY OF TH	174 Cart	1 (0.1)	1.0			

### North Boundary Butte

-			
DAY	DEF	TH9	
72.			RIMARYS
	PROM	TO	
2/16	1.281		DETERMINE TO SECURE AS A SECUR
2/10	4784	And the second	DRILLED O B hours circulated for Schlumberger, Whours can Schlum-
	*		perger electrical survey, microlog, and laterplog. 3 hours circu-
			latec and waited on orders. I hour made up tester. I hour made
		ં પૂર્વ	DST # 4 (open period 1 hour 24 minutes). Treated mid with storch,
4.		59 SR	gypsum and preservative.
	v =		
2/17	4784	1.829	DRILLED 45. I hour finished running DST #. 4 (shut-in 1 hour) 1 hour
			attempted to backscuttle oil in drill stem into sump, unsuccessful;
			6 hours pulled ? stands to fluid and waited on day light to pulled
			tool. I hour brake cown and loaded out tool. 2 hour built up mud
28			volume, & hour reamed to bottom. Treated mad with salt gell staren.
			gypsum and preservative.
			63 Po pr 60001 4 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0
	a.		DST # 4. 4731'-4749'. Straddle test, Johnston Testers. 2-62" bobtail
			packers. at 4724 and 4731, and 1-62 conventional open hole packer
<b>.</b>			
			at 4749. Four pressure recorders, two outside and two below better
			packer, 3/4" subsurface and 1" surface beans, perforations 4731-4749
	ì		no air or water cushich. Tool open 1 hour 24 minutes, shut in lehour.
		57%	Very strong blow immediately. Inflammable gas to surface in 2
<b>3</b> 7.			minutes, initially sweet then becoming highly sulfurous, rate
1	i de la companya de l		450 MCF/D. Greenish brown oil to surface in 10 minutes. Produced
1	1		into test tanks a total of 52.5 barrels oil in 95 minutes (including)
	1		15 minutes after tool was shut in), rate 1152-720 barrels per day
			average 913 barrels per day. Tank and flow line samples but 0.1
			5.5% BS & W. Unable to reverse circulate fluid out of drill pape;
	l.		pulled drill pipe, leaving fluid in hole. Fluid below revenue cir-
-			culation valve consisted of 270' (1.3 barrels) viscous oil-iron
	4		sulfide emulsion with strong HoS odor, cutting 85% (mostly iron
	* · ·	,	sulfide). Bottom 3 above tool consisted of black sulfur water
		1	
			maximum salinity 3300 ppm (t).
1			
ora,	1 2 2 2		Tank Sample
			Number Description Cut% Wet
	l .	1	
	1	1	green brown oil with strong H2S odor 2 B 380
	gt.		2 green brown oil with strong HoS odor 3 BS 380
			green brown oil with strong H2S oder 5.5 BS 380
	The second	•	green brown oil with strong Ros odor 1 BS
1		1.	
30		<u></u>	
	CO	A NOITIGH	T BEGINNING OF PERIOD
	HOLE		ASING SIZE DEPTH SET

CONDITION AT BEGINNING OF PERIOD											
	HOLE	**	CASING SIZE	TO SET							
1811 7 7/84	Q 1023	1023 4740	9 5/8"	1012							
DRILL I		, 1¢	.6 #/ft.								

### DRILLING REPORT

Retroacht 20 1955

T The Late

-DXY PROM V \* TO : FLOW LINE 2/17 h78h 1829 SAMPLE NO. DESCRIPTION ... green brown oils tempeted her has green brown oil, temp. 122 F PART ABOVE TES TER DESCRIPTION black, sulforous, viscola oil amulaton, str "no cut obtainable black, sulfurous, wiscous old spulsion, strong Hos ouse black sufur water A Mind before test 190 pma (1), 9. I pounds per game TR. 250, OF 1110, SIR 1545 (Manual Land Managhately), in 2140 NOTE: Pressure recorders indicated a slight leader 2/18 DRILL 20.81 : 12 hours cinculated erior to running DST 5 thawed out frozen air lines. Treated and with calt gel and the contract of the contra 4829 11910 starph, and preservative 2/20 49:0 4 4931 DRILLED 211. 1 hour waited lon tester; 2 hours made us heat tool.

hours ran DST # 5, 1 hour broke howe tool, y Hour waited on our I hower thawed out mud I has and wells. Theated mud with day and starch. or water cushida. Tool open h hours is minutes, shall blow moderate and steady throughout test. Inflammable surface in 22 minutes, rate nil. 8" (456 barrels) flow as annulus. Redovered 230 (1.3 barrels) slightly sassy and

	HOLK		CASSIQUIZE	DEPTH SET
S)ZK	FROM	, <b>1</b> 0		
12 <b>1</b> n	0			
7 7/90		1063	النبي	
7 1/4. <b>35</b> 1	<b>25</b> 023.	1710	n ~ /Q	
1		* 4	9 3/0	1012
		×		
DRILL	erm -	μĘα	16.6 pon	nds per feat

### North Boundary Butte

San Juan Itah

	(COPA		N. A. S.			CONTRACT OF PERSONS	ئىرىنى ئۇرلىقىدىن
DAY	DE	FTHS .					
	FROM	7 70		REMARK	BAROLD UNITS	SALINETY WELCHY	
2/19	4910	4931	FEET ABOVE TESTER	DESCRIPTION	OF GAS	POUNDS P	ER —
			90*	Slightly gassy Slightly gassy Slightly gassy	mud 50/40 mud 90/36, mud 200/96	200 9.2 180 9.3 150 8.7	
*			IFP 160 F BHT 125 F	FP 180, SIP 15	20 (stabilized after 45	minutes), HP 2420.	
			Mud b detec	efore test 150 ted.	ppm (*), 9.3 pounds per	gallon. No H.5	
<b>2</b> /20	4931	<b>L</b> 994	DRILLED 631.	Round trip and reated mud. wit	d survey, 43 bours Work h preservative, and gyps	ed on light plant, m.	
			Mud S Weigh	ummary +			
			isco Water	sity Loss	9.7 pounds per gallon. 47-58 seconds 8-15-2 cc		
			Salin PH	r Cake ity	2/32 in. .h50-125 ppm		
				d B. O. E. Dai			
		1-	1111	E. B.	Noland Brilling Company		
					Clements Glazebrook		*
**************************************							**
	GO.	NOITION	T BEGINNING OF PERIO	<u> </u>			***
	HOLE "	1		PTH SET			
- SHEE	. ENOM	то					
	1 * 1	7 7 2				A CONTRACTOR OF THE CONTRACTOR	100

	HOLE .	<u> </u>	CASING SIZE	DEPTH SET	485	
917.5	KWOM	TO	. *			
	*	1 m				
1214	n -	1023			- 1	
121 n 7 7/80	1023	4710				
	1	. 1	9 5/81	1012	***	
الميو	#:					
,						
DMILL	PIPE d	1.	16.6 Pour		5 × 1.4	

Leonard Snyder

### UNITED STATES

### DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

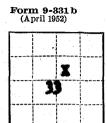
# LOG OF OIL OR GAS WELL

Compan		1011			Address	33 Riches	de Bleres	<u> </u>	
Locant	r Tract	North Box	mdary Bu	ntte	Field	•	State	Pal	
Well No	9	Sec. 33	ր <b>կշ</b> Տ. R	228-Mer	idian S.L.M.		inty 🎮	<del>/m</del>	
MEGIT BUT SERVER		t. 2 of	내가는 기가 가장하다.		The second secon	ine of _Sec.	33	Eleva	tion .5027,
30 April 1984		70		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	te and correct			work d	one thereon
so far a	s car be d	etermined f	rom all ave	ailable rec	eords.	01	10.	Les	/.
	E.P.R	22 1905		Si	gned	14	3. Proti	67	
Date							loitatie	M. MAC	9
				the state of the s	on of the well a		March 6		19.55
Jomme	ne d <b>dri</b> ll	ing <b>Ja</b> m							, 10-25.
			OII		Denote gas by (7)	ZONES			
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No. 3, f		5374	יולל יו	30 (	The state of the s	rom			70.0
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						rom			
.,,,,					SING RECOR	D	8 <sup>1</sup>	· · · · · · · · · · · · · · · · · · ·	
Size	Weight	Thread per	Make	Amount	Kind of shoe	Cut and pulled from	Perfor From-	ated To-	Purpose
-5/8#	p+100t 16∌	ard Srd	Spang	1012'	Baker			•	Surface
1/2×	i7,	Access to the second	- Spare	a state a did did not a second	Baker		4688.0	5284	Product
								****	y <del></del>
4		andrasia Barrian Santana Barrian Barrian					7		
				The second secon				-241400000	la constant
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### (SUBMIT IN TRIPLICATE) UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Budget Bureau No. 42-R359.4. Approval expires 12-31-60.

	ndian Agency	Havajo
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Allottee Tribal Lands

### SUNDRY NOTICES AND REPORTS ON WELLS

DONDA' NOTICES A	AND REPORTS ON WELLS
NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
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NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT.
NOTICE OF INTENTION TO PULL OR ALTER CASING.	SUPPLEMENTARY WELL HISTORY.
NOTICE OF INTENTION TO ABANDON WELL	Placed Bridge Flug
(Indicate above by Check Mari	K NATURE OF REPORT, NOTICE, OR OTHER DATA)
	November 23. , 19.58
North Boundary Butte	
Well No. 1 is located 3300 ft. fr	$\{com \ S\}$ line and 1980 ft. from $\{cape{E}\}$ line of sec. 33
125 (½ Sec, and Sec. No.) (Twp.)	(Range) (Meridian)
Akah San Juan	Diah
(Field) (County	y or Subdivision) (State or Territory)
State names of and expected depths to objective sands; show s	
9-22-58 Rigged up completion rig. 4780. Ran tubin to 477	Killed well. Set cast iron bridge plug at 7' and rods and pump.
to Pumped and tested wall.	
<b>1~3~</b> 58	
275 B/D cleen, out 20% no	FICH (Representative) 3hh B/D, gross, gas measurement recompleted 10-h-58.
I understand that this plan of work must receive approval i	n writing by the Geological Survey before operations may be commenced.
Company Shell 011 Company	
Address 705 Municipal Drive	Original signed by
mington, New Herriso	ByB. W. SHEPARD
	B. W. Shepard



### SHELL OIL COMPANY

Post Office Box 1200 Farmington, New Mexico

June 23, 1961

The State of Utah
Oil and Gas Conservation Commission
310 Newhouse Building
10 Exchange Place
Salt Lake City 11, Utah

Attention A. W. Glines

Gentlemen:

Regarding your letter dated June 20, 1961, we are forwarding two copies each of the following information on North Boundary Butte No. 1:

Drilling History
Log of Oil or Gas Well (U.S.G.S. Form)
Electrical Log
Laterolog
Microlog
Gamma Ray-Neutron Log

Very truly yours,

RJC:MPD

Enclosures

Division Production Manager

Solverities of the solution of

### Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING 1860 LINCOLN STREET DENVER, COLORADO 80203 (903) 255-1751

December 18, 1969

U. S. Geological Survey
Department of the Interior
P. O. Box 959
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Gentlemen:

Re: Navajo #1 (North Boundary Butte) Sec. 3-T42S-R22E, San Juan Co., Utah

Please find enclosed three copies of Form 9-331, "Subsequent Report of: Testing Lower Perforations". As shown, this work was not performed due to encountering a fish in the hole.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink

Petroleum Engineer

DES/cc

Enclosure

cc. Navajo Tribe
Minerals Department

State of Utah
Oil & Gas Conservation Commission

35

Ferm 9-331 VMay 1963)

### UNITED STATES SUR DEPARTMENT OF THE INTERIOR Vers

SUBMIT IN TRIPLICATE\* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

DEPARTMENT OF TH	E INTERIOR verse side)	5. LEASE DESIGNATION AND SERIAL NO.
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	10r such proposals.)	7. UNIT AGREEMENT NAME
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. NAME OF OPERATOR	-1:./\	8. FARM OR LEASE NAME
Consolidated Oil & Gas, Inc.	Shell)	North Boundary Butte  9. WELL NO.
1860 Lincoln Street, Suite 1300, D	enver, Colorado 80203	
LOCATION OF WELL (Report location clearly and in accordance also space 17 below.)	iance with any State requirements.*	10. FIELD AND POOL, OR WILDCAT
At surface		North Boundary Butte  11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
3300' North and 1980' West of So Section 33, T-42S, R-22E	utheast Corner of	Sec. 33, T-42S, R-22E
4. PERMIT NO. P. T. McGrath s   15. ELEVATIONS (S	Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISH 13. STATE
letter of 12/27/54 5027.9	К.В.	San Juan Utah
6. Check Appropriate Box T	o Indicate Nature of Notice, Report, or	Other Data
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TEST WATER SHUT-OFF PULL OR ALTER CAS	NG WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CASING
SHOOT OR ACIDIZE ABANDON*	SHOOTING OR ACIDIZING	ower Perforations X
REPAIR WELL CHANGE PLANS	(Other) TESTING IN	dits of multiple completion on Well
(Other) 7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly St	Completion or Recor	mpletion Report and Log form.)
Re: To drill out cast iron bridge 5108' - 5184', 5208' - 5266' a  The above-captioned work was not p	nd 5274' - 5282'. erformed due to encountering	a fish in the hole.
The well currently produces from p	erforations 4688' - 4694', 4	708' - 4714' and
4720' - 4750'. (See attached summ	ary of daily operations,	
		그는 그렇지 충북한 회사를 즐겨워 함께 다
18. I hereby certify that the foregoing is true and correct		
SIGNED Garant	TITLE Petroleum Engineer	DATE 12/18/69
D. E. Smink (This space for Federal or State office use)		
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APPROVED BY	TITLE	DATE
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### CONSOLIDATED OIL & GAS, INC.

- AKAH #1: (North Boundary Butte) 3300' N and 1980' W of SE Corner, Section 33, T42S-R22E, San Juan County, Utah
- 11/26/69: Pulling unit will move in and rig up. Will start operations Friday,
  November 28, 1969.
- 11/27/69: No report.
- 11/28/69: Will start workover today.
- 11/29/69: Pulled rods and pump and 2-7/8" tubing. Cleaned out cellar. Installed BOP's. SD at 3:30 PM. Running bit and scraper this AM.
- 11/30/69: Ran 4-3/4" bit and scraper. Tagged at 4724'. Top of BP at 4780'.

  Pumped 400 BW could not break circulation. Put 6000# wgt. on bit and reverse circulated could not make hole. Pulled bit and scraper, measured out of hole w/no correction. Shut down overnight.
- 12/1/69: No report.
- 12/2/69: Ran 4-3/4" bit (w/no scraper) on 2-7/8" tubing. Tagged PBTD at 4724'. Pumped 100 bbls. salt water down tubing, could not establish circulation. Rotated bit for 10 min. w/6,000 8,000 lb. wgt. Made no hole. Tubing had no torque. Pulled bit and tubing. Ran 4-3/4" o.d. impression block with 6 jts. tubing on sand line. Impression block stopped at 3500'. Pulled impression block. Scale build-up at 3500' indicated. Will run 4-1/2" o.d. impression block.
- 12/3/69: Ran 4-1/2" OD impression block on sand line. Got impression of 2-7/8" tubing body flared out to 3 inches. (Old Shell reports in Farmington files indicates a fish in the hole. Fish consists of Top: Stub of 2-7/8" tubing, resulting from cut; pump seating nipple; and one joint of 2-7/8" tubing as a mud anchor. Old reports also indicate that fish is stuck, and that jarring to 150,000# failed to move fish.). Will run tubing, pump, and rods; and return well to production.
- 12/4/69: Ran tubing, pump, and rods and returned well to production. <u>Final Report.</u>
  Transferred to Production Department.



# Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING 1860 LINCOLN STREET DENVER, COLORADO 80203 (303) 255-1751

July 15, 1970

United States Geological Survey Department of the Interior P. O. Box 1809 Durango, Colorado 81302

Attention: Mr. Jerry W. Long

Re: Form 9-331

North Boundary Butte No. 1

San Juan County, Utah

#### Gentlemen:

Please find attached the original and two copies of Form 9-331 signifying our intention to drill out a cast iron bridge plug at 4780', and test perforations 5108-84, 5208-66', and 5274-82'.

A "Subsequent Report" of operations will be furnished you upon completion of operations.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink

Petroleum Engineer

DES/cc

Attachment

cc. State of Utah
Oil & Gas Conservation Commission

The Navajo Tribe Minerals Department



### UNITED STATES = DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

SUBMIT	IN	TRIPE	CA.	re.
Other 1	nstr	uctions	οп	re
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Form approved.

Badget Bureau No. 42-R1424.

LEASE DESIGNATION AND SERIAL NO.

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•		North Boundary Butte
Consolidated Oil & Gas, Inc.		9. WELL NO.
1860 Lincoln Street, Suite 130	0. Denver. Colo. 80203	1 9999 1 9823
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See also space 17 below.) At surface		·
		11. SEC., T., B., M., OR BLK. AND
3300' North and 1980' West of	Southeast Corner of	SURVEY OR AREA
Section 33, T42S, R-22E		Sec. 33, T42S-R22E
4. PERMIT NO. P. T. McGrath's 155 ELEVATIONS (S	Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISH 13. STATE
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SIGNED D. E. Smink	TITLE Petroleum Engineer	DATE -7/15/703-
SIGNED D. E. SMIRK  (This space for Federal or State office use)		DATE -7/15/703-
SIGNED D. E. Smink	TITLE Petroleum Engineer	DATE 7/15/7037



### UNITED STATES - SUBMIT IN TRIPLICATES DEPARTMENT OF THE INTERIOR verse side)

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Consolidated Oil & Gas, Inc.  3. ADDRESS OF OPERATOR	9. WELL NO.
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1860 Lincoln Street, Denver, Colorado 80203 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*	10. FIELD AND POOL, OR WILDCAT
See also space 17 below.) At surface	North Boundary Butte
3300' North and 1980' West of Southeast	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
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14. PERMIT NO. P. T. McGrath & ELEVATIONS (Show whether DF, RT, GR, etc.)	ಹಿ.ಟಿ.ಆರ ∤ ಒರು ಮ
letter of 12/27/54 5027.9' KB	San Juan Utah
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Form	9-331
(May	1963)

### UCTED STATES SUBMIT IN TRU DEPARTMENT OF THE INJERICR (Other Instructed verse side)

Form approved,
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

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GEOLOGICAL	. SURVEY	17-20-003-230
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Consolidated Oil & Gas, Inc.		North Boundary Butte
. ADDRESS OF OPERATOR		9. WELL NO.
1860 Lincoln Street, Denver,	Colorado 80203	
L LOCATION OF WELL (Report location clearly and in acc	ordance with any State requirements.*	10. FIELD-AND POOL, OR WIEDCAT
See also space 17 below.) At surface		North-Boundary Butte
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18. I hereby certify that the foregoing is true and correct		er 14770 and
SIGNED D. C. Sminh	Petroleum Engine	PATE 28/14/70_3 = 3
D. E. Smink		
(This space for Federal or State office use)		General Rud I. General Rud I. But I. Blem & Blook. Brown Blook. Item & B
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APPROVED BY	TITLE	DATE STORY
CONDITIONS OF APPROVAL, IF ANY:		Strain a str



# Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING 1860 LINCOLN STREET DENVER, COLORADO 80203 (303) 255-1751

August 14, 1970

U. S. Geological Survey Department of the Interior P. O. Box 959 Farmington, New Mexico

Attention: Mr. P. T. McGrath

Re: Navajo #1 (N. Boundary Butte)
Section 3-T42S-R22E
San Juan County, Utah

#### Gentlemen:

Please find enclosed three copies of Form 9-331, "Subsequent Report of: Testing of Lower Perforations", and a daily report of operations. As shown, this workover was unsuccessful and the well has been temporarily abandoned.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink

Petroleum Engineer

D. C. Sminh

DES/cc

Enclosures

cc. The Navajo Tribe
Minerals Department

State of Utah
Oil & Gas Conservation Comm.

September 3, 1970

U. S. Geological Survey Department of the Interior P. O. Box 959 Farmington, New Mexico

Attention: Mr. P. T. McGrath

Re: Navajo #1 (N. Boundary Butte)
Section 3-T42S-R22E
San Juan County, Utah

#### Gentlemen:

Pursuant to our letter of August 14, 1970, in which you were informed of the temporarily abandoned status of the above well, please find enclosed three copies of Form 9-331, "Notice of Intention to Pump Test Well".

You will, of course, be notified of the final dispostion of this well.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
Petroleum Engineer

DES/cc

Enclosure

cc. The Navajo Tribe
Minerals Department

State of Utah
Oil & Gas Conservation Commission



Form 9-331

DEPARTMENT OF THE INTERIOR (Other instructions on verse side)	re- 5. LEASE DESIGNATION AND SERIAL NO.
GEOLOGICAL SURVEY	14-20-603-236
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  Use "APPLICATION FOR PERMIT—" for such proposals.)	Navajo
1.	7. UNIT AGREEMENT NAME
OIL X GAS OTHER	
2. NAME OF OPERATOR	8. FARM OR LEASE NAME
Consolidated Oil & Gas, Inc.	North Boundary Butte
3. ADDRESS OF OPERATOR	9. WELL NO. 3
1860 Lincoln Street, Denver, Colorado 80203 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*	10. FIELD AND POOL, OR WILDCAT
See also space 17 below.) At surface	North Boundary Butte
22001 month and 10001 went of courtbeast common of	11. SEC., T., R., M., OR BLK. AND
3300' north and 1980' west of southeast corner of	SURVEY OR ABEA
Sec. 33, T42S, R22E	Sec 33, T42S-R22E
14. PERMIT NO. P. T. McGraths 1 15. ELEVATIONS (Show whether DF, RT. GR, etc.)	12. COUNTY OR PARISH 13. STATE
letter of 12/27/54 5027.9' K.B.	San Juan   Utah
Check Appropriate Box To Indicate Nature of Notice, Report, o	or Other Data
NOTICE OF INTENTION TO:	SEQUENT REPORT OF
TEST WATER SHUT-OFF PULL OR ALTER CASING WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT  MULTIPLE COMPLETE  FRACTURE TREATMENT	ATTERING CASING
SHOOT OR ACIDIZE ABANDON* SHOOTING OR ACIDIZING	X ABANDONMENT*
REPAIR WELL CHANGE PLANS (Other) return to	production sults of multiple completion on Well
(Other) Completion or Reco	ompletion Report and Log form.)
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent deproposed work. If well is directionally drilled, give subsurface locations and measured and true versions.	ates, including estimated date of starting any retical depths for all markers and zones perti-
nent to this work.) *	
Put well on pump and tested well for 20 days. Re-treat	
5108-84, 5208-66, and 5274-84 with 5,000 gals. 15% re	egular acid.
Returned well to production.	
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지나 회사들은 사람이 많아 보는 얼마를 받아 다시 그 사람이 되었다.	an in designed for bright by the first the applied by the second to be
	com is designed for submitting proposed to approve the condition of the normal to applicable Pedend Inc. 2014 of the no approved of the new to applicable should include reasonate of the no applicable should include reasonate of the no applicable should include reasonate of the no applicable should not not not not not not not not not not
18. I hereby certify that the foregoing is true and correct	
SIGNED	
• D. E. Smink	
(This space for Federal or State office use)	
APPROVED BY TITLE	DATE
CONDITIONS OF APPROVAL, IF ANY:	



# Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING 1880 LINCOLN STREET DENVER, COLORADO 80203 (303) 255-1751

#### WORKOVER REPORT

AKAH #1: 3300' N and 1980' W of Corner Sec. 33-T42S-R22E, San Juan Co., Utah, Elev. 5028' KB

- 7/23/70: Rigged up to pull tubing, pulled 26 jts. (tubing was parted in threads of 26th jt.). Waited on equipment 5 hrs., unloaded 168 jts. 2-1/2" tubing, ran overshot on 26th jt. tubing. Caught fish, pulled and laid down 18 jts. Shut down for night. 105 jts. production tubing to lay down. Will run impression block.
- 7/24/70: Pulled and laid down 105 jts. 2-7/8" tubing and pump barrel. Ran impression block on sand line -- indicated 3" flare or bevel on top. Ran 4-3/4" mill on 152 jts. 2-7/8" tubing. Milled on fish 1 hr., made 2" in 30 min. Fish appeared to be spinning. Pulled out of hole. Ran impression block -- top of fish appeared to be 2-7/8". This AM, will run overshot and fishing tools.
- 7/24/70: Pulled and laid down 105 jts. 2-7/8" tubing and pump barrel. Ran impression block on sand line...indicated 3" flare or bevel on top. Ran 4-3/4" mill on 152 jts. 2-7/8" tubing. Milled on fish 1 hr., made 2" in 30 min. Fish appeared to be spinning. Pulled out of hole. Ran impression block -- top of fish appeared to be 2-7/8". This AM, will run overshot and fishing tools.
- 7/25/70: Ran overshot, bumper sub, jars and 6-4" DC's on 146 jts. 2-7/8" tubing. Latched onto fish. Jarred at 80,000# for 1 hr. Pulled free. Pulled out of hole. Recovered 9.80' stub of 2-7/8" tubing, 2-7/8" collar, pump seating nipple, 2-7/8" collar and 6" of 2-7/8" perf'd. nipple w/7.95' x 1-1/2" stinger. Ran 4" O.D. impression block, showed 2-7/8" tubing.
- 7/26/70: Ran overshot and latched onto fish. Jarred 4 times at 80,000#. Came free. Pulled out of hole. Recovered 3' piece perf'd. nipple. Ran impression block and got impression of nipple. Ran collar overshot, engaged coupling. Jarred 15 min. at 80,000#. Pulled out of hole. Recovered 1 mud anchor jt. tubing 30' long w/o coupling and bull plug. Ran 4-5/8" O.D. impression block. Pulled and got perf. burr impression.

- 7/27/70: Ran 4-1/4" impression block. Got impression of perforation burrs.
  Ran sand line without impression block and flagged line. Ran impression block and tagged 2' deeper. Ran tubing open-ended, and tagged at 4753' KB. Pulled up to 4603' and SD. Preparing to squeeze.
- 7/28/70: Lowered tubing to 4752'. Spotted 1 sk frac sand from 4752-4759'. Pulled tubing. Ran 2 jts. tailpipe, Baker Model "R" packer, and 142 jts. tubing. Set packer at 4427', tailpipe at 4488'. Pumped into perf's. 4688-4750' at 3 BPM and 350 psi. Tested casing to 400 psi (maximum). Squeezed 4688-4750' with 16 bbls. (68 sxs Class A w/.8% Halad-9, 12.5# Gilsonite/sk) to 2000 psi. Got squeeze job and tubing full of cement. Could not reverse. Unseated packer and pulled 46 jts. tubing. Circulated 20 BW down tubing. Pulled 96 jts. tubing, Model "R" packer and 2 jts. tailpipe. SD to WOC. Top of plug at 3368'.
- 7/29/70: Started up at 8:00 AM. Ran 4-3/4" bit on 2-7/8" tubing and scraper. Top of cement at 2600'. Rigged up to drill cement. Found split nipple in valve. Drilled soft cement from 2600 to 2660', hard cement from 2660 to 2850'. Total of 250' in 4 hrs. Circulated hole clean at 2850'. Pulled tubing, bit and scraper. Nippled down. Dug out collar. Removed casing valves, nipples, and well head. Will cut ring groove in well head, and test valves and nipples. Present operation: nippling up. Will go back in and finish drilling out.
- 7/30/70: Installed well head and BOP. Ran 4-3/4" bit and scraper, 6 4" D.C.'s, and 85 jts. 2-7/8" tubing. Broke circulation at 11:45 AM. Drilled hard cement from 2850 to 3060' and cement stringer from 3060 to 3130'. No cement from 3130 to 3905'. Hit cement at 3905'. Circulated hole clean. Pulled 119 jts. tubing, D.C.'s, scraper and bit. SD for night.
- 7/31/70: Cleaned out, circulated tank, ran new 4-3/4" bit + 4-3/4" casing scraper + 6 4" D.C.'s on 119 jts. of tubing. Circulated hole clean at 3905'. Drilled soft cement from 3905-3995', hard cement from 3995-4125'. Circulated hole clean. Picked up and raised bit to 4005'. Hung tubing in slips. Shut down for night.
- 8/1/70: Repaired hydraulic system on rig 2 hrs. Started drilling cement at 10:30 AM. Drilled hard cement from 4125 4340' (215' in 7-1/2 hrs.). Circulated hole clean. Raised bit to 4220'. SD for night.
- 8/2/70: Started drilling at 8:30 AM. Drilled hard cement from 4340 4464'. Cleaned out circulating tank. Pressure checked BOP and well head to 1000 psi. Well head leaked off to 400 psi in 3 min. Drilled hard cement from 4464 4620'. Drilled 280' cement in 9 rotating hrs. Circulated hole clean. Raised bit to 4500'. SD for night.

<u>8/3/70</u>:

Drilled hard cement from 4620 - 4721'. Removed BOP's, tightened well head, and installed BOP. Tested well head and BOP, and squeezed perfs. to 1000 psi for 5 min., held pressure. Drilled hard cement from 4721 - 4752', bit broke through. Washed frac sand, cement, and scale from 4752 - 4757'. Cleaned out circulating tank, loaded hole with SW. Pumped into bottom perfs. at 1.3 BPM and 350 psi surf. pressure. Reverse circulated well clean. Drilled on iron at 4757' for 15 min. Pulled 4-3/4" bit, scraper and D.C. Ran 4-1/2" O.D. impression block on sand line. Got impression of 2-7/8" collar slightly egg shaped with 1/2" piece of metal beside collar. Metal appeared to be piece of 1" strainer nipple, horseshoe shaped. SD for night. Will run wash pipe, mill and overshot -- will mill over fish.

8/4/70:

Ran mill, shoe, bumper sub, hydraulic jars and (6) 4" O.D. drill collars on 2-7/8" tubing. Tagged fish at 4757'. Broke circulation. Milled over fish. Tool went down 2.3' in 10 min. Pump pressure increased. Return stopped while reverse circulating. Pulled dry string -- mill shoe had marks on interior shoulder, indicating fish had been inside. Ran 4-5/8" O.D. magnet on sand line. Recovered steel filings. Pulled magnet. Ran friction socket, bumper sub, hydraulic jars, and (6) 4" O.D. drill collars on 2-7/8" tubing. Tagged fish at 4757'. Broke circulation. Washed over fish and pushed top of fish to 4758'. Pump pressure increased. Got 2000# weight increase when picking up fish. Pulled wet string. Recovered 2-7/8" collar, 2-7/8" bull plug on bottom of collar, piece of slip for drill collar clamp 1" x 1" and chip off 2-7/8" tubing wall. SD for night. Will run W.L. magnet, and mill out B.P.

8/5/70:

Ran 4-5/8" O.D. magnet on sand line, (2 runs). Recovered approx. 3 oz. misc. iron. Ran mill shoe, bumper sub, 6 x 4" D.C. on 2-7/8" tubing. Tagged fillup at 4759'. Attempted to wash down (reverse). Mill shoe plugging badly while washing. Pulled out of hole. Ran 4-3/4" bit on 2-7/8" tubing. Drilled scale and rubber from 4759-4782'. Pulled out of hole w/bit. Bit showed signs of running on iron. SD for night. Will run magnet and then rerun mill shoe.



Ran 4-5/8" magnet on sand line, recovered 3 small pieces of iron. 8/6/70: Ran mill shoe, bumper sub, hydraulic jars, and (6) 4" O.D. drill collars on 2-7/8" tubing. Broke circulation, drilled over CIBP slips in 1 hr. 5 min. Pushed BP to 5278', plug would not go deeper. Pulled out of hole, laid down drill collars and tools. Ran production string as follows:

6 jts. 2-7/8" tubing		183.24
1 Baker Model "R" packer	•	6.901
l cup type seating nipple		1.05
163 jts. 2-7/8" tubing		5058.631
	Total	5249.82

14' KB to GL, tailpipe at 5263.82' (KB), and bottom packer at 5080.58' (KB). Removed BOP, set packer w/20,000# wgt., and installed tree. SD for night.

8/7/70: Well on vacuum this AM. Tagged FL at 2000'. Ran tubing broach (3 runs) on sand line to clean cement from tubing walls. Swabbed well as follows:

TIME	BF	SD (Avg.)	FL (Avg.	% )WTR.	REMARKS
10:30 - 11:30 AM	24	4000'	30001	100	3 runs
12:30 PM	15	50001	4250'	99	3 runs, good gas, cement chips
1:30 PM	6	50001	46001	95	3 runs, gas increasing
2:30 PM	2	5000'	48001	98	gas decreasing
3:30 PM	2	50001	4800'	98	gas decreasing

Will acidize this AM.

15 hr. SITP = 25 psi. Started swabbing at 9:00 AM. Tagged FL at 8/8/70: 3974' down, 1100' fluid in hole.

> 1st pull rec. 20 gals. of oil on top. Pulled from 5000'. Rest of fluid SW and no gas. 2nd pull rec. SW w/tr. of brn. green oil on bottom of pull, some gas. 1200' fluid in hole. 3rd pull rec. gas cut clean salt water w/tr. of oil, brn. and green. 600' fluid in hole. Pulled from 5000'. Total swabbed 1st hour = 12 BSW. 4th pull rec. SW w/ tr. brn. green oil. 400' fluid in hole (SD - swabbing).

Treated perfs. w/500 gals. 15% reg. acid, packer set at 5074'. Perfs. 5108-5184, 5208-5266', and 5274-5282'. Loaded annulus w/6 BSW, loaded tubing w/37 BSW. Tubing was on vacuum. Swabbed tubing dry. Pumped 11.5 bbls. acid to spot w/20.5 BW. Pumped 5 bbls. acid in formation, 1 BPM at 500 psi. Let soak 5 min. Pumped 5.5 bbls. acid, 1 BPM at 500 psi. Let soak 5 min. Pumped 1.5 bbls. flush at 500 psi. Max. press. 500 psi, min. zero psi. ISIP 400 psi. 3 min. SIP zero psi. Job complete at 12:15 PM. Total wtr. to rec. = 50 bbls. Ran swab at 1:00 PM, tagged FL at 100' down. Swabbed as follows:

8/8/70: continued

1:00 to 2:00 PM: FL 3300' down. Rec. 0 BO + 37 BW (acid gas on 4th pull).

2:00 - 3:00 PM: FL 4000' down. 2 runs. Rec. 0 BO + 15 BW w/acid gas. Est. 2 BW over load rec.

3:00 - 4:00 PM: FL 4000' down. Pulling from 5000'. Tr. of oil + 11 BW rec. (gas-cut SW, 2% maybe).

4:00 - 5:00 PM: FL 5000' down. 2 runs. 11 BSW (gas-cut).

8/9/70: 15 hr. SITP = 25 psi. Tagged FL at 3200'. Swabbed well as follows (hourly data):

BF	<u>FL</u>	SD	% WTR.	REMARKS
22	4200	5000	98	gas-cut fluid
10	11	11	98	n n
12	11	11	98	11
11.5	11.	110	98	tt ti
10	11	11	99+	tt tt
10	11	41	95	n , n
11.5	11	11	95	11 ff
7	4400	11	95	n n
84.0		•		

8/10/70: Rigged unit down. Well Temporarily Abandoned.



9/5/70: 11 BO + 12 BW, 12 x 84" spm (24 hrs.).

9/6/70: Roads washed out. Pumper could not get to well.

9/7/70: Well down when arrived at location (3:00 PM). Put to pumping.

48-hr. production: 25 BO + 22 BW.

9/8/70: 16 BO + 19 BW in 24 hrs. (12 x 84" spm).

9/9/70: Will have late report. 14 BO + 15 BW in 24 hrs. (12 x 84" spm).

9/10/70: 16 BO + 15 BW in 24 hrs. (12 x 84" spm). Will acidize well when

wash-outs are repaired.

9/11/70: 11 BO + 11 BW (12 x 84" spm) in 20 hrs. (short gauge).

9/12/70: 16 BO in 24 hrs. (no gauge on water).

9/13/70: Road washed out -- could not get to well.

9/14/70: Road washed out -- could not get to well.

9/15/70: Produced 38 BO in 48 hrs. No gauge on water.

<u>9/16/70</u>: No report.

9/17/70: 16 BO + 16 BW in 24 hrs. (12 x 84" spm). Preparing to acidize.

9/18/70: Rigged up pulling unit and pulled rods and pump. Waited on acid truck 2 hrs. Rigged up B-J, loaded casing w/3 BSW and

pressured to 350 psi. Acidized perfs. 5108-5184', 5208-5266', 5274-5282', w/5000 gals. 15% HCl NE, inhib. to 120° F. Avg. inj. rate 4 BPM, avg. TP 400 psi, min. press. "zero", max. press. 750 psi, min. rate 2-1/2 BPM, max. rate 6 BPM. Flushed w/34 BSW, rate 3-1/2 BPM at 750 psi. ISI 500 psi,

1 min. SIP "zero", then strong vacuum. 154 BTF to recover.

Tagged FL at 3000' from surface.

4:30 - 5:30 SD 5000' 6 pulls FL 4200' 25 BSW 5:30 - 6:30 5 pulls FL ? SD 50001 18 BAW and acid gas 6:30 - 7:30 5 pulls FL ? SD 50001 12 BAW and

trace oil

#### CONSOLIDATED OIL & GAS, INC.

### AKAH #1: (Workover)

9/19/70: 13 hr. SITP = 125 psi.

No. of Pulls	SD	BF	% Water	Remarks		
<b>.</b>	5000	22	95	Acid gas		
5	5000	16	95	Acid gas		
5	5000	15	90	Good vol. of gas		
5	5000	12	90	11 11 11		
5	5000	9	90	11 11 11 11 11 11		
		74 B	F			

PWOP at 3:30 PM. Rigged down pulling unit. 16 hr. production test: 23 BO + 17 BW (12  $\times$  84" spm), plus filling tubing and flowline (est. capacity 30 BF).

9/20/70: 41 BO + 14 BW (12 x 84" spm) in 24 hrs.

9/21/70: 32 BO + 15 BW in 24 hrs. Have recovered 167 BSW, 7 bbls. over load.

9/22/70: No report.

9/23/70: 42 BO + 10 BW in 28 hrs.

9/24/70: 33 BO + 9 BW in 22 hrs. -- short gauge (12 x 84" spm).

9/25/70: 24 BO + 6 BW in 20 hr. (short gauge)

9/26/70: 37 BO + 7 BW in 25 hr. (12 x 84")

9/27/70: 5 BO + 3 BW in 4 hrs., down 20 hrs. w/engine trouble. 12 x 84" spm.

9/28/70: 30 BO + 9 BW in 24 hrs. (12 x 84")

9/29/70: 30 BO + 9 BW in 24 hrs. (12 x 84")

9/30/70: 43 BO + 5 BW (30-hr. gauge) (12 x 84")

U. S. Geological Survey
Department of the Interior
P. O. Box 959
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Re: Navajo No. 1, North Boundary Butte Sec. 33, T42S, R22E San Juan County, Utah

#### Gentlemen:

Please find attached three copies of Form 9-331 reporting the testing and re-stimulation of the subject well. This form supplements the Form 9-331 dated 8/14/70 and previously submitted to you. Also attached is a detail report of operations summarizing work performed and well test data from 7/23/70 to 9/30/70.

In further response to your letter of September 24, 1970, the well is producing commercial quantities of oil and the well will be produced on a regular schedule each month. The 5 to 10 barrels of water produced per day will be disposed of (as prior to the workover) in the North Boundary Butte No. 43-28 well, located 1650 ft. south and 2313 ft. east of the northwest corner of Section 28, T42S, R22E.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink Petroleum Engineer

DES:lt Attachments

cc: The Navajo Tribe
Minerals Department

State of Utah
Oil & Gas Conservation Commission



Consolidated Oil & Gas, Inc.

DIVISION OF OIL GAS & MINING

FEB - 3 1986

P. O. BOX 2038 FARMINGTON, NEW MEXICO 87499 (505) 632-8056

January 29, 1986

State of Utah Division of Oil, Gas & Mining 3 Triad Center, Suite 350 Salt Lake City, Utah

RE: Name Change of Principal from Consolidated Oil & Gas, Inc. to Columbus Energy Corporation

### Gentlemen:

Consolidated Oil & Gas, Inc. requests a name change of principal to Columbus Energy Corporation. This name change will include all Federal, Indian, State and Fee wells operated by Consolidated Oil & Gas, Inc. in Utah. The attached list contains well names, lease numbers and locations for all Federal and Indian leases operated in Utah.

Well signs have been changed to Columbus Energy Corp. and the required oil & gas bonds have been filed.

Please contact our Farmington office if you need any additional information.

Thank Nou,

Dále Richardson

Production & Drilling Sup't.

Attach.

### RECEIVED

FEB - 3 1986

DIVISION OF OL GAS & MINING

### CONSOLIDATED OIL & GAS, INC. - SAN JUAN COUNTY, UTAH WELLS

BLUFF 3       NW/NW/4 4-40S-23E       SJ       SL 071403A         BLUFF 13-4       "       SJ       "         BLUFF 24-5       "       SJ       "         BLUFF 42-5       "       SJ       "         BLUFF 44-5       "       SJ       "	NAME <u></u>	LOCATION	COUNTY	LEASE NO.
BLUFF 13-4 " SJ " BLUFF 24-5 " SJ " BLUFF 42-5 " SJ " SJ " SJ " SJ " SJ " SJ " SJ " S	1	NE/4 33-42S-22E	SJ	14-20-603-236
BLUFF 42-5 " SJ " SJ "	13-4	"	SJ	***
	42-5		SJ	<b>11</b>
DESERT CREEK 2 SE/4 35-41S-23E SJ 14-20-603-24	RT CREEK 2	SE/4 35-41S-23E	SJ	14-20-603-248
RECAPTURE CREEK 1       SE/SW/4 21-40S-23E       SJ       U 01890         RECAPTURE CREEK 2       SW/4 21-40S-23E       SJ       "         RECAPTURE CREEK 3       SE/4 21-40S-23E       SJ       "	PTURE CREEK 2	SW/4 21-40S-23E	SJ	11
TOHONADLA 23-35 SW/4 35-41S-21E SJ "  TOHONADLA 32-35 NE/4 35-41S-21E SJ "  TOHONADLA 36-1 SW/4 36-41S-21E SJ "  TOHONADLA 41-25 NE/4 25-41S-21E SJ "  TOHONADLA 41-35 NE/4 35 41S-21E SJ "	NADLA 23-35 NADLA 32-35 NADLA 36-1 NADLA 41-25 NADLA 41-35	SW/4 35-41S-21E NE/4 35-41S-21E SW/4 36-41S-21E NE/4 25-41S-21E NE/4 35 41S-21E	SJ SJ SJ SJ	11 11 11
TOHONADLA 43-35 SE/4 35-41S-21E SJ "  TOHONADLA TRACT 23-1 NE/4 02-42S-21E SJ 14-20-603-27				14-20-603-270

UTAH
NATURAL RESOURCES
OIL, GAS AND MINING

n- (noi)528-524

### NOTICE OF TRANSFER OF OWNERSHIP

CONSOLIDATED OIL & GAS, INC.  Telephone: (505)632-8056  Address: P.O. BOX 2038  City: FARMINGTON State: N.M. Zip: 87499  Well no.: 1 Field or unit name: AKAH  Sec.: 33 Twp.: 42S Rng.: 22E County: SAN JUAN Lesse no. 14-20-603-236  Effective date of transfer: December 1, 1985  April 7, 1986  Date  New operator: COLUMBUS ENERGY CORPORATION  Address: P.O. BOX 2038  City: FARMINGTON State: N.M. Zip: 87499  April 7, 1986  Date	
FIELD OF UNIT Name: AKAH  Sec.: 33 Twp.: 42S Rng.: 22E county: SAN JUAN Lesse no. 14-20-603-236  Effective date of transfer: December 1, 1985  April 7, 1986  New operator: COLUMBUS ENERGY CORPORATION  P.O. BOX 2038  City: FARMINGTON State: N.M. Zip: 87499  April 7, 1986	
Sec.: 33 Twp.: 42S Rng.: 22E county: SAN JUAN Lease no. 14-20-603-236  Effective date of transfer: December 1, 1985  April 7, 1986  Date  New operator: COLUMBUS ENERGY CORPORATION  Address: P.O. BOX 2038  City: FARMINGTON State: N.M. Zip: 87499  April 7, 1986	
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P.O. BOX 2038  City: FARMINGTON State: N.M. zip: 87499  Signature of new operator  April 7, 1986	
City: FARMINGTON State: N.M. zip: 87499  Signature of new operator  April 7, 1986	
April 7, 1986	
Date	
(This space for DOGM approval)	
Approved by: Date:	



355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut 84180-(203. ●(801-538-5340)

Page \_\_\_\_ of \_\_\_\_

### MONTHLY OIL AND GAS PRODUCTION REPORT

012108

Operator name and address:

JAN 00 198

 COLUMBUS ENERGY CORP 1860 LINCOLN ST #1100 DENVER CO ATTN: SHELLENE KRAFT

80295

Itah Account	No. <u>NO255</u>			
Report Period	(Month/Year)	11	1	86

Amended Report

Well Name				Producing	Days	Production Volume		
API Number	Entity		cation	Zone	Oper	Oil (BBL)	Gas (MSCF)	Water (BBL)
WAVAJO TR #	23-1							
+303715540	06230 42	5 21E	2	ISMY	30	912		168
AKAH #1								
4303715870	06240 42	S 22E	33	PRDX	0	0		
BLUFF #42-5								
4303730866	06245 40	S 23E	5	DSCR	0	0	6	0
BLUFF #3								
4303715864		S 23E	4	DSCR	0	0		
BLUFF #24-								
4303715865		S 23E	5	PRDX	0	U	0	
BLUFF #44-								
4303715867		S 23E	5	PRDX	0	0		
BLUFF #13-					_			0
4303730726		S 23E	4	DSCR	0	0		
RECAPTURE			Segjjadj					0
4303730727		S 23E	21	IS-DC	10			
TOHONADLA								
4303730854		S 21E	36	PRDX	0	0	0	
RECAPTURE				10 00	1	1.12	707	120_
4303715871		15 2 jt		IS-DC	30	613		
DESERT CRK				PRDX	30	549		
4303715868		3 4 3 E	<u>)</u>	I FRUA	1 30	+		
DESERT CRK		C 225	26	PRDX	0	0		
4303715869 TOHONADLA		o ∠)E	٥٥	FRUA	+-0	<del></del>		
4303715872		C 215	2 E	PRDX	30	766	100	773
4303/150/2	00290 4	3 410	. ))	FRUX	100	166		
					TOTAL	2840	9/7	1061

	TOTAL		840	1 9/		10101
Comments (attach separate sheet if neces	sary) Akah #	I-SOLD	10	BOG /NC.	effective	12-1-86
	per att	a c1+8D	ENTITY	Action Form	1	
I have reviewed this report and certify the	information to be a	ccurate and	complete.	Date/	16/87	
Shellene Kraft - Khway Authorized signature	anada			Telephone	(303) 861-5	3252



4241 State Office Building Solt Lake City, UT 84114 801-533-5771

Page 1 of 1

PRODUCING	ENTITY	ACTION	FORM
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	186 Dei count No	50 Linco nver NO255		1100 teCO	1	Add Pelet Estati Char Char cxist Othe	new e wel lish r ling er ling e hing e r. (Spe	iew ent well(s) l(s) from new ent ntitup ell(s) from ntitup ell(s) us	CTION CODE ity for new well(s). to existing enlity. m existing enlity. ity for well(s) being rom one entity to ing atlachments if rest to BE GROUPED	onother neceysary.)
Action Code		New Entity No.	API No	Well Name	<u> </u>	II Loca	ition  R	100	County	Producing Formation
С	06240		4303715870	Akah #1				SE E NE	San Juan	DSCR
		SOLD TO	Bog, Inc. 200 Grand Ave P.O. Box 636 Grand Junctio							
			No ENTITY		ssary	VZ-	87			



# STATE OF COLORA

DEPARTMENT OF STATE

### CERTIFICATE

DIVISION OF OIL, GAS & MINING

I, NATALIE MEYER, Secretary of State of the State of Colorado hereby certify that the prerequisites for the issuance of this certificate have been fulfilled in compliance with law and are found to conform to law.

Accordingly, the undersigned, by virtue of the authority vested in me by law, hereby issues A CERTIFICATE OF AMENDMENT TO BOWERS OIL AND GAS, INC., FORMERLY KNOWN AS BOG, INC.

Dated: SEPTEMBER 19, 1988

SECRETARY OF STATE





355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut 84180-1203.0(801-538-5340)

Operator name and address:

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Page		ot	

### MONTHLY OIL AND GAS PRODUCTION REPORT

•BOG INC (BOWERS) P O BOX 636 GRAND JUNCTION CO 81502 ATTN: DENISE D. JOHNSON				Utah Account No. NO150  Report Period (Month/Year) 1 / 89  Amended Report	
Well Name	Producing	Days	Production Volume		
API Number Entity Location	1 -	1 1	Oil (BBL)	Gas (MSCF)	Water (BBL)
DAMS # 22-2 FEDERAL	in a said sa				
301930664 00245 205 21E 22	MRSN				
DAMS #22-1 FEDERAL		V.			
301930684 00245 20S 21E 22	MRSN	3	1		
SOWERS FED #1-6			,		
301930411 00420 205 24E 6	BUKHN		<u> </u>		
10-TX #2-36	DUTA		_	-	
301930747 00430 20S 21E 36 UMBLEWEED #1	DKTA	<del> </del>			
301930513 02235 20S 21E 27	MNCS		·.		•
EDERAL TUMBLEWEED #27-5	7 11100				
301930715 02235 20S 21E 27	MNCS	1			<u>.</u>
MBLEWEED 27-8					
01931165 02235 20S 21E 27 ر	MNCS				
EDERAL 22-3					
301930665 02236 20S 21E 22	MNCS				
TUMBLEWEED 27-3		k)			
301930643 02260 20S 21E 27	MRSN				
KAH #1					
303715870 06240 42S 22E 33 DAMS #1 STATE	PRDX	<u> </u>	<u> </u>		
301915106 06275 20S 21E 36	DKTA			į	
CISCO FEDERAL 1-3	STATE OF THE STATE				
301930557 08235 20S 23E 1	MRSN				
3N #4-33	again wins an	<del>                                     </del>	<del> </del>		
303730919 09170 428 22E 33	AKAH	170			
	_ <del></del>	<del>- 1 </del>			
	7	TOTAL			
	•				
omments (attach separate sheet if nece	ssary)				
	•				
				<b></b> .	
have reviewed this report and certify the	intormation	to be	accurate and complete.	Date	
		·····		Telephone	
Cilionzed Signature					

Form 3160-5 (November 1983)	UNITED STATE	(Other instructions	DE TE 5. LEASE DESIGNATION AND SERIAL NO.
(Formerly 9-331)	DEPARTMENT OF THE		14-20-603-236
BUREAU O AND MANAGEMENT			6. IF INDIAN, ALLOTTEE OR TRIBE NAME
(Do not use th	NDRY NOTICES AND REP is form for proposals to drill or to deepe Use "APPLICATION FOR PERMIT"	ORTS ON WELLS n or plug back to a different reservoir. for such proposals.)	Navajo
1.	050		7. UNIT AGREEMENT NAME
OIL XX WELL	OTREE		N/A 8. FARM OR LEASE NAME
2. NAME OF OPERATOR	nd Gas, Inc.		Indian
3. ADDRESS OF OPERAT			9. WALL NO.
P.O. Box 63	6, Grand Junction, CO 81	502D 5 (CLEAN ) 5	North Boundary Butte I
See also space 17 b	elow.)		Akah Field, Akah Pool
SW‡NE‡		AUG 28 1989 C	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 33, T425, R22E
		DIVISION OF	
14. PERMIT NO.	15. ELEVATIONS (Show	whether DEOH PGAS & MINING	12. COUNTY OR PARISH 13. STATE
43-037-	·15870	5027.9 KB	San Juan Utah
16.	Check Appropriate Box To I	ndicate Nature of Notice, Repor	t, or Other Data
	NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMEN	T ALTERING CASING
SHOOT OR ACIDIZE	X ABANDON®	SHOOTING OR ACIDIZI	NG ABANDONMENT*
REPAIR WELL	CHANGE PLANS	(Other)(Norm: Report	results of multiple completion on Well
(Other)	opportunity of Charly state	The state of the s	Recompletion Report and Log form.) t dates, including estimated date of starting any e vertical depths for all markers and zones perti-
indicate using ap	well has experienced a sed we have scale problems pproximately 500 Gallons as possible.	, we request permission	to acidize the well
Trans		OIL AN	D GAS
		DRN	RJF
		l <del>/</del> /	
;	!	\/JRB V	GLH
		DTS	SLS
in (Suppose		Y Y	
		a.TAS	
i i		<u> </u>	
		3- MICRO	DFILM V
		H FIL	.E (
			4
18 I hereby certify	that the foregoing is true and correct		
SIGNED		TITLE President	DATE 8/16/89
(This space for l	Federal or State office use)		
APPROVED BY		TITLEACCEPT	ED BY THE STATE
CONDITIONS OF	F APPROVAL, IF ANY:		AH DIVISION OF
Federal ap		OIL. G	AS, AND MINING
	before commencing *See	Instructions on Reverse Fide	7-5-89/
onerations	J&&		

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 9	TE OF UTAH		
	DEPARTMENT OF NATURAL RESOURCE		6. Lease Designation and Serial Number
	DIVISION OF OIL, GAS AND MINI	NG	
			7. Indian Allottee or Tribe Name
CHMD	DV NOTICES AND DEDODES (	NUMELLO	
	RY NOTICES AND REPORTS O		9 Unit or Communitization Agreement
Do not use this form for propo-	sals to drill new wells, deepen existing wells, or to re		8. Unit or Communitization Agreement
	Use APPLICATION FOR PERMIT— for such proportion	)&ais	
1. Type of Well			9. Well Name and Number
□ Qil □	Gas Other (specify)		No Boundary Butte
2. Name of Operator	yven —		10. API Well Number
Bowers Oil and	Cas Inc		4303715870
3. Address of Operator	Gas, Inc.	4. Telephone Number	11. Field and Pool, or Wildcat
P.O. Box 636.	Grand Junction, CO 81502	970-245-1342	
5. Location of Well	- Tank Canalian, Co Ciju	770 245 1542	
Footage :	_	County	:
QQ, Sec, T., R., M. : 7	4205 R 220E Sec# 33	State	: UTAH
	PROPRIATE BOXES TO INDICATE N		ORT, OR OTHER DATA
A STATE OF THE STA	NOTICE OF INTENT	ACCOUNT OF THE PROPERTY OF THE	QUENT REPORT
	(Submit in Duplicate)	(Submit	Original Form Only)
Abandonment	New Construction	Abandonment *	New Construction
Casing Repair	Pull or Alter Casing	Casing Repair	Pull or Alter Casing
Change of Plans	Recompletion	Change of Plans	Shoot or Acidize
Conversion to Inject	ion Shoot or Acidize	Conversion to Injection	☐ Vent or Flare
Fracture Treat	Vent or Flare	Fracture Treat	Water Shut-Off
Multiple Completion	☐ Water Shut-Off	Other	
X Other Yearly s	shut-in report		
		Date of Work Completion	
Approximate Date Work	Will Start		
		Report results of Multiple Complet on WELL COMPLETION OR REC	tions and Recompletions to different reservoirs OMPLETION AND LOG form
		* Must be accompanied by a cen	
10 DECORURE PROPOSED OF	D COMPLETED OPERATIONS (SILVE)		If well is discretionally drilled give subsystems
locations and measured ar	R COMPLETED OPERATIONS (Clearly state all perti nd true vertical depths for all markers and zones pert	inent details, and give pertinent dates. inent to this work.)	il well is directionally drilled, give subsurface
	·		(
TT- 1 1			
we nave no snu	t-in wells located in the Sta	te of Utah.	
•			·
		c	
		. ](	
		1	[\\
			DIV OF OH OAC O BRIBLISTO
			DIV. OF OIL, GAS & MINING
		'	The state of the s
14 I horoby portify that the	mains in true and acres		
14. I hereby certify that the fore			
Name & Signature James	E. Bowers Commes & Coure	Title Pre العن	sident Date 1/25/99
- Janes	WILL Y 1811/160 C - WOTOV		

(State Use Only)